DOCUMENT RESUME

ED 109 498 CE 004 359

AUTHOR	Hilderbrand, John A.; And Others
TITLE	Experience-Based Career Education, Appalachia Educational Laboratory. Final Evaluation Report, September 30, 1974.
INSTITUTION	Appalachia Educational Lab., Charleston, W. Va.
PUB DATE	30 Sep 74
NOTE	275p.; For interim evaluation report, see CE 004 358; For related document, see CE 004 360
EDRS PRICE	MF-$0.76 HC-$13.32 PLUS POSTAGE
DESCRIPTORS	Alternative Schools; *Career Education; Career Exploration; Case Studies (Education); Educational Assessment; Educational Programs; Evaluation Criteria; *Evaluation Methods; Formative Evaluation; *Grade 12; Program Effectiveness; *Program Evaluation; Questionnaires; School Community Relationship; Summative Evaluation; *Work Experience Programs
IDENTIFIERS	AEL; Appalachia Educational Laboratory; EBCE; *Experience Based Career Education Program

ABSTRACT

The first two sections of the final evaluation report of the Experience-Based Career Education (EBCE) Program of the Appalachia Educational Laboratory, Inc. (AEL), a community-based alternative curriculum for high school seniors, briefly describe the EBCE summative and formative evaluation designs and the student populations studied. Section 3 describes the summative evaluation results with respect to 15 hypotheses regarding program impact and effect, favorably comparing the EBCE students with the comparison students on cognitive skills development and gain in self-concept of cognitive skills. Section 4 describes the design, instrumentation, and testing procedures, and student populations of the formative evaluation; surveys the EBCE subsystems; and discusses seven ministudies which cover vrious aspects of the program. Section 5 presents nine case histories of EBCE students describing four students who substantially improved academically while enrolled in the program and six students who made specific career choices as a result of their program experience. The report concludes that the program successfully served as an alternative educational program, and that it was demonstrably individualized and personalized. Appendixes comprise 45 pages and include a bibliography of FY 73-74 EBCE evaluation reports, various testing instruments, and questionnaires. (JR)

ED109498

FINAL EVALUATION REPORT

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

September 30, 1974

Dr. John A. Hilderbrand
Ms. Charlotte Hollenberg
Dr. James H. Sanders

Edited by
Ms. Debbie Evans

CE 004 359

Experience-Based Career Education
Appalachia Educational Laboratory, Inc.
Charleston, West Virginia

2/3

TABLE OF CONTENTS

INTRODUCTION TO FINAL EVALUATION REPORT ---------- i

Section 1 - Overview of Experience-Based Career Education Between September 1, 1973 and June 30, 1974

I. Preface ---------- 1

II. Overview of the Experience-Based Career Education Program ---------- 1

III. Formative Evaluation Activities ---------- 1

IV. Summative Evaluation Activities ---------- 4

Section 2 - Description of Student Populations September 1, 1973 to June 30, 1974

I. Preface ---------- 6

II. Student Groups ---------- 6

III. Descriptive Comparisons ---------- 8

Section 3 - Summative Results

I. Preface ---------- 23

II. Program Impact and Program Effects ---------- 23

A. Hypothesis #1 ---------- 27

B. Hypothesis #2 ---------- 33

C. Hypothesis #3 ---------- 35

D. Hypothesis #4 ---------- 40

E. Hypothesis #5 ---------- 43

F. Hypothesis #6 ---------- 44

G. Hypothesis #7 ---------- 46

H. Hypothesis #8 ---------- 47

I. Hypothesis #9 ---------- 49

Table of Contents (cont'd)

J. Hypothesis #10 ---------- 51

K. Hypothesis #11 ---------- 52

L. Hypothesis #12 ---------- 54

M. Hypothesis #13 ---------- 55

N. Hypothesis #14 ---------- 56

O. Hypothesis #15 ---------- 57

III. Miscellaneous Outcomes ---------- 57

A. Attendance ---------- 58

B. Interpersonal Skills ---------- 58

C. Graduation Status ---------- 58

D. Other Outcomes ---------- 59

IV. Summary ---------- 59

Section 4 - Formative Evaluation of Experience-Based Career Education - September 1, 1973 to June 30, 1974

I. Preface ---------- 63

II. Design of Formative Evaluation ---------- 65

III. Instrumentation and Testing Procedures ---------- 65

IV. Student Populations ---------- 66

V. The AEL/EBCE Program ---------- 66

VI. Overview of Subsystems ---------- 68

A. Experience Site Identification and Recruitment Subsystem ---------- 68

B. Experience Site Analysis Subsystem ---------- 76

C. Student Recruitment and Selection Subsystem ---------- 83

Table of Contents (cont'd)

D. Instructional Delivery Subsystem ---------- 90

VII. Mini Studies ---------- 101

A. Mini Study #1: Credit Translation ---------- 101

B. Mini Study #2: Student Evaluation of Experience Sites ---------- 106

C. Mini Study #3: Experience Site Evaluation of Students ---------- 111

D. Mini Study #4: Experience Site Interviews --- 113

E. Mini Study #5: Parent Interviews ---------- 118

F. Mini Study #6: Credits and Grades ---------- 121

G. Mini Study #7: Attendance ---------- 127

Section 5 - Case History of Selected EBCE Students to June 30, 1974

I. Preface ---------- 130

II. Methodology ---------- 130

III. Case Histories ---------- 130

A. Case History #1 - Diana Merrill ---------- 130

B. Case History #2 - Jane Donahue ---------- 140

C. Case History #3 - Mary Ellis ---------- 150

D. Case History #4 - Tony Schwartz ---------- 156

E. Case History #5 - Robert Smith ---------- 164

F. Case History #6 - Kirk Williams ---------- 172

G. Case History #7 - Anna Glidden ---------- 180

H. Case History #8 - Russell Francis ---------- 188

I. Case History #9 - Caroline Jones ---------- 194

Table of Contents (cont'd)

IV. Summary and Conclusions ---------- 201

A. Introduction ---------- 201

B. Background Information ---------- 201

C. Academic Program ---------- 201

D. History of Career Exploration at EBCE ------ 202

Section 6 - Summary and Conclusions of Experience-Based Career Education - September 1, 1973 through June 30, 1974

I. Preface ---------- 203

II. Description Summary of Student Populations ----- 204

III. Summary of Formative and Summative Evaluation Findings ---------- 205

A. Summary of Formative Evaluation Findings --- 205

B. Summary of Summative Evaluation Findings --- 209

IV. Conclusions and Recommendations ---------- 211

List of Tables

Table		Page
2-1	A Summary of the Background Characteristics of the Selected Students	9
2-2	Comparison of Mothers' and Fathers' Formal Education	12
2-3	A Brief Summary of the Preliminary Career Choices of Sample Students	13
2-4	The EBCE Students' Major Reasons for Joining the Program	15
2-5	Summary of Background Data; GPA, Attendance, and EDS Scores	17
2-6	Summary of Pretest Data; EDS, CMI, and SIS-CSQ	20
2-7	Summary of Pretest Data on EBCE-II Students	21
2-8	Descriptive Characteristics of EBCE Students in Terms of the Iowa Tests of Educational Development	22
3-1	Abbreviations	24
3-2	Career Maturity Inventory Means and Standard Deviations	29
3-3	Career Maturity Inventory Univariate Analysis	30
3-4	A Comparison Among the Four Samples in Terms of the Posttest Only Criteria	32
3-5	Educational Development Series Raw Score Means	36
3-6	Educational Development Series	36
3-7	Iowa Tests of Educational Development Raw Score Means	38
3-8	Iowa Tests of Educational Development Univariate Analysis	38

List of Tables (cont'd)

Table		Page
3-9	Scheffe's Test Results	42
3-10	SIS-CSQ Trait Score Means	60
3-11	SIS-CSQ Univariate Analysis	61
4-1	Recommendations, Plans, and Results: Employer Identification and Recruitment Subsystem	75
4-2	Recommendations, Plans, and Results: Experience Site Analysis Subsystem	82
4-3	Recommendations, Plans, and Results: Student Recruitment and Selection Subsystem	89
4-4	Recommendations, Plans and Results: Instructional Delivery Subsystem	99
	Mini-Studies	
	4-1 Estimated Points, Actual Points, and Integrated Activity Sheets for Learning Coordinator	103
	4-2 N Value By Learning Coordinator	104
	4-3 Student Evaluation Form	112
	4-4 Distribution of Grades First Semester	122
	4-5 Distribution of Credits	122
	4-6 Distribution of Grades Second Semester	122
	4-7 Distribution of Credits	123
	4-8 Attendance	128
5-1	Experience Site Assignments of Diana Merrill	139
5-2	Experience Site Assignments of Jane Donahue	148
5-3	Experience Site Assignments of Mary Ellis	155
5-4	Experience Site Assignments of Tony Schwartz	163
5-5	Experience Site Assignments of Robert Smith	171

List of Tables (cont'd)

Table		Page
5-6	Experience Site Assignments of Kirk Williams --------	179
5-7	Experience Site Assignments of Anna Glidden ---------	187
5-8	Experience Site Assignments of Russell Francis ------	193
5-9	Experience Site Assignments of Caroline Jones -------	200
6	Subsystem Stabilization ----------	206

List of Figures

Figures		Page
3-A	Instrument Administration Schedule	25
3-B	Part 2: Knowing About Jobs (Occupational Information)	28
3-C	Iowa Tests of Educational Development Percentile Ranking	39
3-D	Attitude Scale	41
3-E	Part 4: Looking Ahead (Planning)	44
3-F	Part 5: What Should They Do (Problem Solving)	45
3-G	Part 1: Knowing Yourself (Self-Appraisal)	47
3-H	Part 3: Choosing A Job (Goal Selection)	49
4-A	Subsystems of the AEL/EBCE System	69
4-B	Employer Identification and Recruitment Subsystem, January, 1974	71
4-C	Experience Site Analysis Subsystem	77
4-D	Student Recruitment and Selection Subsystem, January, 1974	84
4-E	Instructional Delivery Subsystem, January, 1974	91

Mini-Studies

4-A	Actual Point (Means) by Academic Subject Area	105
4-B	Credit Comparison	124
4-C	Grade Comparison	125

Introduction

The purpose of this report is to fulfill a requirement of the Appalachia Educational Laboratory/Experience-Based Career Education (AEL/EBCE) contract with the National Institute of Education (NIE) that a Final Evaluation Report be prepared and submitted to the Career Education Program (CEP) staff of NIE. The report has been prepared by the evaluation staff of the Experience-Based Career Education (EBCE) Program of the Appalachia Educational Laboratory, Inc. (AEL). It is responsive in content and form to the Guidelines for the FY74 Final Evaluation Report for Experience-Based Career Education prepared by the NIE/Model II evaluator.

The report is principally intended for the NIE Career Education Program staff and members of the External Site Review Team. It is most meaningfully read in conjunction with other program materials which describe the program, its staff, the community, and its experience sites. These can be found in the Operational Plan, FY74, the first Quarterly Progress Report, and the second Quarterly Progress Report. If the reader does not have these program descriptions or first-hand knowledge of Model II programs of NIE/CEP, he is urged to obtain them from the EBCE Program Director, Appalachia Educational Laboratory, P. O. Box 1348, Charleston, West Virginia 25325.

The following material is organized into six sections: Section 1 is an overview of EBCE evaluation activities between September 1, 1973 and June 30, 1974; Section 2 describes the student population in terms of baseline data for the experimental and comparison groups; Section 3

presents the activities and findings of summative evaluation; Section 4 overviews the AEL/EBCE subsystems and presents findings, recommendations, and program actions as identified by formative evaluation; Section 5 presents case histories of nine students who were enrolled in EBCE during the FY74 contract period; Section 6 summarizes findings and conclusions, and presents recommendations and relevant program actions.

SECTION 1

Overview of
Experience-Based Career Education
Evaluation Activities
Between September 1, 1973
and June 30, 1974

I. Preface

There are three purposes for Section 1 of the Final Evaluation Report: highlighting evaluation activities, presenting a context for their interpretation, and providing analysis of the needs and rationales which led to AEL/EBCE emphasis on formative evaluation and stabilization.

II. Overview of the Experience-Based Career Education Program

The Appalachia Educational Laboratory's Experience-Based Career Education Program has been in existence for two years. Originally the project was funded by the United States Office of Education (USOE), later by the National Institute of Education. Based on the USOE directive, AEL developed a project that would be a community-based alternative educational curriculum for high school seniors.

The first year of operation of the AEL/EBCE Program consisted of developing and expanding the Experience-Based Career Education concept. A great deal of effort was spent in developing an innovative curriculum in order that the EBCE Instructional Delivery System, as well as other components of the EBCE learning process, could be tested. The second year of operation was spent in revising the Instructional Delivery System until all materials were stabilized into a satisfactory unit. Appendix A contains a listing of all previous AEL/EBCE evaluation reports. These documents can be obtained by writing the National Institute of Education or the Appalachia Educational Laboratory.

III. Formative Evaluation Activities

Activities associated with formative evaluation can be divided into four phases: revision of the Formative Evaluation Plan, development of

instrumentation, establishment of timelines, and finally, implementation of the Evaluation Plan. All phases occurred between September 1, 1973 and June 30, 1974.

A. Revision of the Formative Evaluation Plan

Revising the Formative Evaluation Plan was a major activity in September and October. Three consultants critiqued the Plan and proposed ways to strengthen the revision. Dr. James Wardrop of the University of Illinois was selected to assist AEL with this revision which was completed by October 31, 1973. An estimated 30 AEL man-days plus 20 consultant days were used to develop the revised Formative Evaluation Plan.

B. Developing Instruments

Instrument development had priority from November 1 to December 1. Each evaluative instrument was created from questions outlined in the Formative Evaluation Plan, the priority assigned to each and the type of instrument projected for it. Instrument development proceeded in the following manner:

Step 1 being a combined effort on the part of the formative evaluation personnel of AEL/EBCE and the formative evaluation consultant to analyze the question asked by the Evaluation Plan and select a strategy for answering it.

Step 2 being a review of existing formative evaluation instruments used in the AEL and other EBCE programs. These instruments were either revised, adopted, or deleted.

Step 3 being an analysis of each question in the Plan performed by the appropriate respondent(s).

Step 4 being a written first draft of each instrument and subsequent critiquing both for content and for face validity.

Step 5 being administration of the instruments to appropriate samples, analysis of resultant data, and a report of findings.

Step 6 being a revision of each instrument in light of the new information collected in Step 5 for use in FY75. All instruments except the employer questionnaire and the parent questionnaire can be found, as administered in Appendix B of the Interim Evaluation Report.

C. Establishing Timelines

Timelines established for actual formative evaluation of AEL's Experience-Based Career Education system cover the period between December 1, 1973, and June 30, 1974. Since the original Plan was revised (September through October) and instruments had to be developed (November), implementing evaluation sooner than this would have been impossible.

D. Implementation of the Formative Evaluation Plan

The revised Formative Evaluation Plan was implemented during the months from December 1, 1973 to June 30, 1974. Findings associated with this evaluation are presented in Section 4 of this report.

IV. Summative Evaluation Activities

Summative evaluation activities consisted of A) collecting and analyzing preliminary data, B) establishing necessary evaluation controls, C) finalizing a data analysis plan, D) developing or securing additional instruments, E) administering those instruments, and F) analyzing the data and reporting the findings. These activities occurred during the months from September 1, 1973 to August 31, 1974, and proceeded as described below.

A. Collecting and Analyzing Preliminary Data

During student orientation for fall, 1973 each AEL/EBCE student participated in a data collection program using standardized instruments. Students completed eight hours of inventories and tests. The Iowa Test of Educational Development assessed student academic achievement in reading, language arts, mathematics, social studies, science, and use of sources, and the Career Maturity Inventory collected information about each student's career development.

B. Establishing Necessary Evaluation Controls

According to the operating task statements and the Summative Evaluation Plan, two groups of students (Experimental Group and Control Group) were to be selected randomly from the pool of all students that volunteered for the EBCE Program. This was not possible due to an insufficient number of such students. A contingency plan was developed and approved by NIE during the fall recruitment to identify two comparison groups, the first a random sample of seniors from all the Kanawha

County Schools and the second a random sample from some "career education-like" programs in the Kanawha County Schools. Details of this sampling and testing process appear in Section 3 of this report.

C. Planning for Data Analysis

A data analysis plan was requested by NIE in addition to the Summative Evaluation Plan. Dr. James Weber, a NIE-approved consultant, developed the plan which was completed in October and approved in early November. This plan is presented in Section 2.

D. Instrument Development

Instrument development is detailed in Section 2, and the instruments themselves may be found either in Appendix B of this report or in Appendix A of the Interim Evaluation Report.

E. Administration of Instruments

The administration of instruments for summative evaluation included: the battery of standardized instruments administered to new students in January; questionnaires distributed to parents, current students, and participating EBCE employers in January and February; and a second mailing of questionnaires to 1973 EBCE graduates undertaken in April.

F. Data Analysis and Reporting

Post-testing of all EBCE students and control/comparison group students took place in April. Most recent activities have involved the completion of planned data analysis, test scoring, and documentation comprised of nine student case studies and this report.

Section 2

Description of Student Populations

September 1, 1973

To

June 30, 1974

I. Preface

Five distinct groups of students contributed to evaluation of the AEL/EBCE Program for FY 74. Section 2 describes circumstances and individual programs of each group of students and presents data illustrating their comparative characteristics.

II. Student Groups

A. Experience-Based Career Education (EBCE) Students

There were three different groups of students who actively participated in the EBCE Program during the 1973-74 school year. Each participated in the same program and used the same procedures, resources, and facilities. Distinguishing characteristics of these groups were grade placement or length of time in the program. The three groups of students were identified as follows:

EBCE-I students were classified as twelfth graders who had participated in the EBCE Program for the entire year. There were initially 45 students in this group coming from ten of the eleven high schools in Kanawha County.

EBCE-II students were classified as twelfth graders who were enrolled in and had participated in Kanawha County Schools during the first semester of their twelfth year and in the EBCE Program the second semester. There were 45 students in this group at the start of the second semester, also coming from all eleven of the Kanawha County high schools.

EBCE-III students were classified as eleventh graders who participated in the EBCE Program the entire academic year. There

were only five students in this group from two Kanawha County high schools, comprising an n so small that it made no significant difference in analysis. For this reason, EBCE-III students are often not included in subsequent analysis reports.

B. Comparison Groups

Two groups of students were randomly selected from among seniors in Kanawha County high schools for purposes of comparison with EBCE students. These two groups are described as follows:

Vocational Cooperative-Work Study (COOP) students were randomly selected from the five county high schools which offered the program. Seventy students were selected to represent the total population. The COOP Program is offered to both juniors and seniors; however, participating students are largely of senior standing. The program is one in which students typically go to classes for one-half day at the home school and receive on-the-job training at specific employer sites for the rest of the day. Students receive a salary for participating at the employer site.

Kanawha County seniors (RANDOM) were randomly sampled in all eleven of the county high schools. The sample was stratified by student body size and included 120 twelfth graders.

These eleven high schools offer drastic variance in the types of families they serve - from inner-city to rural to upper middle-class suburban.

Their educational programs are basically traditional; however, variations of modular scheduling are used in some. Extensive use of continuous progress curriculum has had an impact on several of the educational programs. Many seniors who require only one or two courses for graduation may attend school for only one-half day.

III. Descriptive Comparisons

Questionnaires and tests were administered to all EBCE, COOP, and RANDOM students to establish comparability. EBCE-I, EBCE-III, COOP, and RANDOM students were administered all instruments between September 15, 1973, and October 15, 1973. EBCE-II students were administered all instruments between January 21, 1974 and February 8, 1974. Comparisons between groups were made only when data were collected which were amenable to legitimate comparisons. That is, statistical comparisons of the EBCE-III with any other group on standardized instruments were not made.

Student demographic data were obtained for all students from the Student Information Questionnaire (Appendix B) and from student permanent records. Data from these sources were coded and tabulated. Summaries of the tabulations are presented in Table 2-1.

A. Comparisons of Sex, Race, and Parent Data

The five groups of students were found to be similar in terms of sex, race, and parent education and occupation. Major differences were fathers' occupations and amount of parents' formal educations.

Table 2-1

A Summary of the Background Characteristics of the Selected Students

Variable	Possible Responses	EBCE I n=45	EBCE II n=40	EBCE III n=5	COOP n=64	RANDOM SAMPLE n=110	Total Grade 12 n=261
		%	%	%	%	%	%
Sex	Male	39.5	46.5	60.0	45.3	46.4	45.1
	Female	60.5	53.5	40.0	54.7	53.6	54.9
Race	White	88.4	93.0	100.0	90.6	90.9	90.9
	Black	9.3	4.7	0.0	6.3	5.5	6.1
	Oriental	0.0	0.0	0.0	0.0	0.0	0.0
	Spanish Descent	2.3	0.0	0.0	0.0	0.0	1.4
	Native American	0.0	0.0	0.0	1.6	2.7	1.5
	Other	0.0	2.3	0.0	1.6	0.9	1.1
Father's Occupation*	Clerical	4.7	2.4	0.0	0.0	1.9	2.0
	Craftsman	11.6	22.0	0.0	19.0	12.4	15.2
	Farmer, Farm Manager	0.0	0.0	0.0	0.0	0.0	0.0
	Homemaker	0.0	0.0	0.0	0.0	1.0	0.4
	Laborer	16.3	7.3	0.0	9.5	14.3	12.1
	Manager, Adm.	18.6	12.2	40.0	12.7	13.3	14.5
	Military	0.0	2.4	0.0	1.6	1.9	1.6
	Operative	25.6	9.8	20.0	19.0	11.4	15.6
	Professional	18.6	12.2	20.0	14.3	21.0	17.2
	Proprietor or Owner	0.0	12.2	20.0	9.5	7.6	7.8
	Protective Ser.	0.0	0.0	0.0	3.2	2.9	2.0
	Sales	0.0	17.1	0.0	3.2	2.9	4.9
	Service	0.0	2.4	0.0	3.2	4.8	3.1
	Technical	0.0	0.0	0.0	4.8	3.8	2.7
	Other	2.3	0.0	0.0	0.0	1.0	0.8
	Don't Know	2.3	0.0	0.0	0.0	0.0	0.4
Mother's Occupation*	Clerical	16.7	16.3	40.0	24.2	13.2	17.5
	Craftsman	0.0	0.0	0.0	1.6	0.9	0.8
	Farmer, Farm Manager	0.0	0.0	0.0	0.0	0.0	0.0
	Homemaker Or Housewife	45.2	48.8	0.0	43.5	53.8	48.2
	Laborer	2.4	0.0	0.0	0.0	0.0	0.4
	Manager, Adm.	2.4	0.0	20.0	1.6	1.9	1.9
	Military	0.0	0.0	0.0	0.0	0.9	0.4
	Operative	2.4	0.0	0.0	1.6	2.8	1.9
	Professional	21.4	20.9	20.0	11.3	13.2	15.2
	Proprietor or Owner	2.4	2.3	20.0	1.6	1.9	2.3
	Protective Ser.	0.0	0.0	0.0	0.0	0.0	0.0
	Sales	2.4	0.0	0.0	9.7	3.8	4.3
	Service	4.8	11.6	0.0	4.8	4.7	5.8
	Technical	0.0	0.0	0.0	0.0	1.9	0.8
	Other	0.0	0.0	0.0	0.0	0.9	0.4
	Don't Know	0.0	0.0	0.0	0.0	0.0	0.0
Father's Education*	None	0.0	0.0	0.0	0.0	0.9	0.4
	Elementary School	9.3	2.4	0.0	6.3	6.4	5.7
	Some High School	20.9	23.8	0.0	21.9	24.5	23.0
	High School Grad.	23.3	28.6	40.0	42.2	27.3	31.0
	Some Post-Secondary	11.6	16.7	0.0	20.3	13.6	15.3
	College Graduate	16.3	21.4	0.0	7.8	14.5	14.2
	Some Grad. Work	11.6	0.0	20.0	1.6	5.5	5.0
	Advanced Degree	2.3	7.1	40.0	1.6	6.4	5.0
	Don't Know or Blank	4.7	0.0	0.0	0.0	0.9	0.4

Table 2-1 (Continued)

A Summary of the Background Characteristics of the Selected Students

Variable	Possible Responses	EBCE			COOP	RANDOM SAMPLE	Total Grade 12
		EBCE I n=45	EBCE II n=40	EBCE III n=5	n=64	n=110	n=261
Mother's Education*	None	0.0	0.0	0.0	0.0	0.0	0.0
	Elementary School	4.7	2.3	0.0	3.1	2.7	3.0
	Some High School	16.3	23.3	0.0	25.0	17.3	19.8
	High School Grad.	41.9	25.6	40.0	41.9	48.2	42.2
	Some Post-Secondary	18.6	23.3	0.0	18.8	16.4	18.3
	College Graduate	7.0	18.6	20.0	7.8	10.0	10.3
	Some Grad. Work	7.0	4.7	0.0	0.0	0.9	2.3
	Advanced Degree	2.3	2.3	40.0	3.1	3.6	3.8
	Don't Know or Blank	2.3	0.0	0.0	0.0	0.9	0.3

*Categories recommended by the Career Education Program of the National Institute of Education.

EBCE-II and EBCE-III fathers were more likely to be "owners or proprietors" than any of the other three groups. The EBCE-II group had more fathers proportionately in sales work than any of the other four groups. Mothers and fathers of COOP students had slightly less formal education than those in the other four groups (Table 2-2). A slightly larger percent of mothers of EBCE students were in professional occupations than were mothers from either of the two comparison groups.

B. Comparisons of Student Goals, Grade Point Average, Attendance, and Achievement

Data from the questionnaire and from student permanent record files on student goals, grade point average (GPA), attendance history, and achievement test results (1972-73 Educational Devleopment Series [EDS]) are displayed in Tables 2-3 through 2-5. Percentages were tabulated to facilitate comparative observations, and statistical tests of multivariate and univariate analysis of variance were performed to identify differences among the four groups containing seniors on GPA, attendance ratios, and on the 1972-73 EDS.

1. Goals

The best evidence available of student goals set prior to FY 74 (when additional data were collected) was the type of curriculum in which the student was enrolled the previous year. Although student goals set prior to FY 74 were similar across groups, EBCE-I and EBCE-III students were more likely to have

Table 2-2

Comparison of Mothers' and Fathers' Formal Education

	EBCE-I n=44		EBCE-II n=40		EBCE-III n=5		COOP n=70		RANDOM n=114		Total n=261	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
Father's Education*	4.62	3.12	4.60	1.48	6.20	----	4.16	1.31	4.45	2.66	4.45	1.54
Mother's Education*	4.49	2.21	4.56	1.35	6.00	----	4.16	1.37	4.31	1.44	4.37	1.30

*(None - 1, Elementary School - 2, Some High School - 3, High School Graduate - 4, Some Post Secondary - 5, College Graduate - 6, Some Graduate Work - 7, Advanced Degree - 8)

Table 2-3

A Brief Summary of the Preliminary Career Choices of Sample Students

Variable	Responses	EBCE			COOP	RANDOM SAMPLE	Total Grade 12
		EBCE-I n=43*	EBCE-II n=40	EBCE-III n=5	n=64	n=110	n=261
		%	%	%	%	%	%
Long-Range Goals	Clerical	7.0	11.6	20.0	12.5	10.9	1.0
	Craftsman	4.7	2.3	0.0	9.4	9.1	7.2
	Farmer, Farm Manager	4.7	2.3	0.0	3.1	0.9	2.3
	Homemaker or Housewife	0.0	2.3	0.0	1.6	4.5	2.7
	Laborer	7.0	2.3	0.0	0.0	0.0	1.5
	Manager, Administrator	7.0	2.3	0.0	4.7	1.8	3.4
	Military	0.0	2.3	0.0	0.0	1.8	0.8
	Operative	0.0	2.3	0.0	1.6	2.7	1.9
	Professional	37.2	44.2	20.0	39.1	43.6	41.3
	Proprietor or Owner	0.0	0.0	0.0	0.0	0.0	0.0
	Protective Service	2.3	4.7	0.0	1.6	1.8	2.3
	Sales	2.3	2.3	0.0	1.6	1.8	1.9
	Service	0.0	2.3	0.0	0.0	1.8	1.1
	Technical	7.0	2.3	0.0	6.3	4.5	4.9
	Other	7.0	2.3	0.0	12.5	8.2	8.0
	Don't Know	14.0	16.3	60.0	6.3	6.4	9.8
Expectations A Year Hence	Working Full Time	25.0	22.0	80.0	20.0	20.2	24.5
	Entering Apprenticeship-Type Program	6.8	7.3	0.0	2.9	1.8	4.1
	Military Service	2.3	0.0	0.0	4.3	3.5	3.3
	Full-Time Homemaker	4.5	2.4	0.0	0.0	1.8	2.0
	Attending Tech., Voc., etc. School	2.3	14.6	0.0	5.7	4.4	6.5
	Junior or Comm. College (Academic)	4.5	0.0	0.0	5.7	1.8	3.3
	Junior or Comm. College (Technical)	0.0	0.0	0.0	5.7	2.6	2.9
	Four-Year College or University	36.4	53.7	20.0	37.1	49.1	49.4
	Working Part-Time	2.3	0.0	0.0	1.4	7.0	4.1
	Other	15.9	0.0	0.0	17.1	7.9	
Major Field of Study	General Curriculum	58.1	20.9	60.0	30.5	33.3	35.5
	Vocational Ed Curriculum	7.0	20.9	20.0	15.3	17.6	15.9
	College Prep Curriculum	27.9	58.1	20.0	49.2	48.0	45.8
	Other	7.0	0.0	0.0	5.1	1.0	2.8

*The statistics presented were generated via a missing data procedure and as a result the n's vary slightly across items. The values indicated are the modal sample sizes - the ranges in the sample sizes were as follows: (a) EBCE: 44 to 42, (b) COOP: 70 to 59, (c) RANDOM: 114 to 102, and (d) Total: 228 to 204.

been enrolled in general curriculum courses than were the students in the other three groups. However, fewer EBCE-I and EBCE-III students were in college preparatory courses than were students from the other three groups during the previous year. The long range goals of the four groups of seniors (EBCE-I, EBCE-II, COOP, and RANDOM) were similar although EBCE-II students indicated that they were more likely to be in school a year hence than any of the other three groups of seniors. Less than one-half of the EBCE-I students (44%) joined the EBCE Program to obtain more information about careers, whereas three-fifths (60%) of the EBCE-II students joined the EBCE to learn about careers. Approximately one-third (30%) of the EBCE-I students indicated that their primary reason for joining the EBCE Program was dissatisfaction with their home schools, whereas less than one-fifth (18.6%) of EBCE-II students cited dissatisfaction as their primary reason for joining the program (Table 2-4).

2. Comparison of Grade Point Average, Attendance Ratio, and Achievement

A grade point average (GPA) was calculated for each EBCE student and for each of the comparison group students. Credits for music, physical education, student council, and other extra-curricular activities were omitted in calculating the GPA, while credits for art, crafts, driver education, and ninth grade music were included. There was one GPA calculated for each semester of ninth grade, tenth grade, and eleventh grade.

Table 2-4

The EBCE Students' Major Reasons for Joining the Program

Response Options	Observed Percentages		
	EBCE I n=5	EBCE II n=43	EBCE III n=40
Want more information on careers	44.2	60.5	80.0
Dissatisfied with last year's school program	30.2	18.6	0.0
Want a more personalized program	18.6	18.6	20.0
Heard it's an easy program	7.0	0.0	0.0
Other	0.0	2.3	0.0

An attendance ratio was tabulated for each student by dividing the total number of days he/she was present by the total possible attendance days for a student in a Kanawha County school. There was one attendance ratio calculated for each grade (ninth, tenth, and eleventh).

All students in West Virginia are administered an achievement test battery, the Educational Development Series (EDS), during their eleventh grade year. Data generated by these tests (1972-73 EDS) were collected for each of the groups in six areas: Reading, English, Mathematics, Science, USA in the World, and Solving Everyday Problems.

A multivariate analysis of variance was applied to all 15 variables (6-GPA, 3-attendance ratios, and 6-EDS component scores) for the four groups of seniors. The resulting F value (1.83) with 87 and 731 degrees of freedom was significant at the .01 level, indicating apparent differences in the four groups of students on some combination of the fifteen variables. Subsequently, a univariate analysis of variance was applied to each of the fifteen variables across the four groups of seniors. The F value for each variable is printed in Table 2-5 with the accompanying probability level of .10 or less.

Significant differences were found in each of the six GPA variables. The RANDOM group of students was consistently higher on the six variables than the other three groups of seniors. EBCE-I group students were consistently lower on the six

Table 2-5

Summary of Background Data;
GPA, Attendance, and EDS Scores

	EBCE-I n=44		EBCE-II n=40		COOP n=70		RANDOM n=114			
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	F	P
Grade Point Average										
9th Grade, 1st Semester	2.18	.69	2.51	.65	2.46	.69	2.65	.81	5.23	.01
9th Grade, 2nd Semester	2.24	.74	2.45	.68	2.53	.73	2.68	.77	4.84	.01
10th Grade, 1st Semester	2.14	.74	2.10	.79	2.38	.71	2.53	.84	4.83	.01
10th Grade, 2nd Semester	2.04	.77	2.06	.81	2.26	.70	2.55	.85	7.26	.001
11th Grade, 1st Semester	2.06	.79	2.35	.66	2.44	.73	2.61	.83	5.37	.01
11th Grade, 2nd Semester	2.27	.77	2.26	.80	2.46	.78	2.61	.89	2.83	.05
Attendance Ratio										
9th Grade	.93	.06	.95	.04	.96	.04	.96	.04	1.82	
10th Grade	.91	.08	.94	.06	.95	.04	.96	.05	11.33	.001
11th Grade	.89	.10	.91	.09	.93	.08	.94	.06	2.91	.05
1972-73 EDS										
Non-Verbal	32.85	7.32	NA		34.22	7.16	34.90	8.36	1.08	
Verbal	30.58	10.30	NA		30.10	9.51	32.89	10.95	1.81	
Reading	37.38	12.20	40.8	11.39	36.82	10.75	40.72	12.59	2.13	.10
English	34.24	10.00	37.6	11.94	34.96	10.63	37.45	12.00	1.29	
Mathematics	22.61	8.72	25.9	7.41	23.43	7.65	26.40	10.15	2.71	.05
Science	33.10	10.80	37.4	11.09	33.31	10.55	36.21	12.75	1.79	
USA in the World	31.60	11.48	36.4	10.43	31.63	10.78	34.32	12.51	1.98	
Solving Everyday Problems	34.63	8.97	38.1	6.23	35.48	7.62	35.66	9.47	1.28	

variables than the other three groups of seniors. EBCE-II group of students varied more in GPA than any of the other three groups of seniors.

Significant differences were also found among the four groups of students in tenth and eleventh grade attendance ratios. EBCE-I group students had a consistently lower attendance ratio than the other groups of students. Although EBCE-II students had a slightly lower attendance ratio than the two comparison groups' students, the two groups were basically very similar on this variable.

Upon examination of the six EDS variables, only two were found to have significant univariate F's: the Reading score and the Mathematic score. Comparison of mean scores on the six sub-tests for all four groups indicates that EBCE-I and COOP students were very similar on the pretest (and had the lowest scores) and that EBCE-II and RANDOM students likewise were very much the same.

3. Other Comparisons

EBCE-I students and all comparison group students were administered the following instruments near the beginning of the school year, fall of 1973: A) Career Maturity Inventory (CMI), B) Student Information System, Confidential Student Questionnaire - Level II (SIS - CSQ), and C) random sections of the Educational Development Series (EDS) achievement test battery.

Univariate analysis of variance was applied to each of the twenty variables (EDS-6, CMI-6, and SIS-CSQ-8) for the three groups of senior students. Significant differences were found in the EDS (English sub-test), the CMI (attitude and Parts 3, 4, and 5 of the Competency Test), and SIS-CSQ (learning attitude, maturity, and personal adjustment factors). As a general trend EBCE students scored lower than the comparison group students. Data is displayed in Table 2-6.

EBCE-II group students were administered the CMI and the SIS-CSQ in January of 1974. Means and standard deviations of the sub-scores are presented in Table 2-7. No comparisons were made with other groups of students.

The Iowa Tests of Educational Development (ITED) were also administered to all EBCE students (EBCE-I, EBCE-III in September and EBCE-II in January). Raw scores and percentiles based on national norms are presented in Table 2-8. The data indicate that EBCE-I and EBCE-III students on the average scored below the 50th percentile on national norms, whereas EBCE-II students scored near the 50th percentile on most sub-tests.

Table 2-6

Summary of Pretest Data;
EDS, CMI, and SIS-CSQ

	EBCE-I n=44		COOP n=70		RANDOM n=114			
	x	SD	x	SD	x	SD	F	P
1973-74 EDS								
Reading	36.37	5.85	37.09	5.05	38.32	6.99	1.84	
English	30.96	4.44	31.31	5.87	33.55	6.83	4.30	.05
Mathematics	26.67	4.46	28.07	3.50	28.55	6.01	2.18	
Science	38.92	6.36	37.59	6.13	39.17	5.91	1.54	
USA in the World	34.66	5.67	35.80	6.16	35.77	6.05	0.62	
Solving Everyday Problems	36.76	3.70	38.11	4.89	37.24	4.81	1.31	
CMI								
Attitude Scale	34.51	5.18	37.60	4.19	36.48	5.60	4.93	.01
Knowing Yourself	13.69	3.66	14.31	3.10	14.48	3.49	0.86	
Knowing About Jobs	16.38	3.54	16.97	2.75	17.22	3.07	1.17	
Choosing a Job	13.05	3.04	14.26	3.24	14.50	3.23	3.32	.05
Looking Ahead	12.80	3.77	14.67	2.89	14.11	3.66	4.03	.05
What Should They Do	11.16	2.99	12.52	2.82	12.45	3.24	3.27	.05
SIS-CSQ								
Cognitive Skills	25.48	8.25	28.29	7.95	27.84	7.28	2.01	
Learning Attitude	15.71	3.97	17.31	3.67	17.87	3.63	5.40	.01
Social Adjustment	61.52	12.72	65.74	12.12	63.72	11.33	1.75	
Maturity	35.96	7.06	38.70	6.63	39.68	6.29	5.14	.01
Personal Adjustment	34.66	7.43	37.64	7.83	35.69	6.84	2.62	.10
Flexibility	20.31	5.45	22.26	4.69	21.94	5.06	2.26	
Reality	30.14	8.36	32.06	9.71	33.01	8.18	1.73	
Vocational Readiness	46.75	7.04	49.33	8.46	49.49	8.22	1.96	

Table 2-7

Summary of Pretest Data on EBCE II Students

	$\bar{x}$	SD
1973-74 EDS	N.A.	
Reading		
English		
Mathematics		
Science		
USA in the World		
Solving Everyday Problems		
CMI		
Attitude Scale	35.9	5.80
Knowing Yourself	14.7	2.39
Knowing About Jobs	17.7	2.59
Choosing a Job	15.0	2.79
Looking Ahead	14.7	3.46
What Should They Do	12.2	2.94
SIS-CSQ		
Cognitive Skills	23.81	3.87
Learning Attitude	16.14	3.23
Social Adjustment	61.33	8.03
Maturity	35.28	4.58
Personal Adjustment	34.47	5.09
Flexibility	19.93	4.61
Reality	33.21	5.21
Vocational Readiness	49.32	4.93

Table 2-8

Descriptive Characteristics of EBCE Students in Terms of the Iowa Tests of Educational Development

	EBCE-I n=40		EBCE-II n=43		EBCE-III n=5	
	Raw Score Mean	National Percentile	Raw Score Mean	National Percentile	Raw Score Mean	National Percentile
Reading Comprehension	26.65	35	31.4	48	24.40	37
Vocabulary	20.53	31	25.7	52	16.00	31
Total Reading	47.18	41	57.1	51	40.40	34
Usage	24.00	30	28.1	40	21.20	25
Spelling	16.64	26	21.8	40	9.60	12
Total Language Arts	40.64	24	50.0	39	30.80	15
Mathematics	11.73	35	14.7	49	9.40	28
Social Studies	23.13	33	28.0	53	21.80	40
Science	24.95	34	29.0	46	20.60	25
Use of Sources	22.43	37	27.6	47	18.60	31
Composite	N.A.	30	N.A.	46	N.A.	27

Section 3

Summative Results

I. Preface

The primary purpose of the summative evaluation activities during FY 74 was to provide valid and reliable evidence of the effectiveness of the AEL/EBCE Program. Program objectives were identified and hypotheses were formed from which a research design was developed. In this section the analysis and evaluation of outcomes are presented.

In this section, the program's impact and effect on students, parents, employers, graduates, and others is reported. Table 3-1 contains a list of abbreviations used.

Data were gathered on the five groups of students described in Section 2. A detailed description of the questionnaire and standardized instruments and how they were administered to provide data on program effects are in the appendices. Figure 3-A is a summary of these instruments and their administration schedule.

Multivariate analysis of variance was used to compare groups of students and to determine student behavioral changes. A univariate analysis of variance was subsequently used with each appropriate variable to determine whether differences occurred within each variable. If a significant F was found with the univariate analysis of variance, the Scheffe' test was used to identify where the differences occurred. An alpha value of .10 or less was determined to be of satisfactory size to warrant significant difference.

II. Program Impact and Program Effect

The impact and effect of AEL/EBCE was measured by testing a number of hypotheses. The format of this section is to state each

Table 3-1

Abbreviations

EBCE-I	Senior students who were enrolled in the Experience-Based Career Education Program for the entire school year
EBCE-II	Senior students who were enrolled in the Experience-Based Career Education Program for the second semester of the school year
EBCE-III	Junior students who were enrolled in the Experience-Based Career Education Program for the entire school year
COOP	A random sample of Kanawha County seniors enrolled in a Cooperative Work Study Program used as a comparison group
RANDOM	A random sample of Kanawha County seniors used as a comparison group
CMI	Career Maturity Inventory
ITED	Iowa Tests of Educational Development
EDS	Educational Development Series
SIS-CSQ	Student Information System, Confidential Student Questionnaire Level II

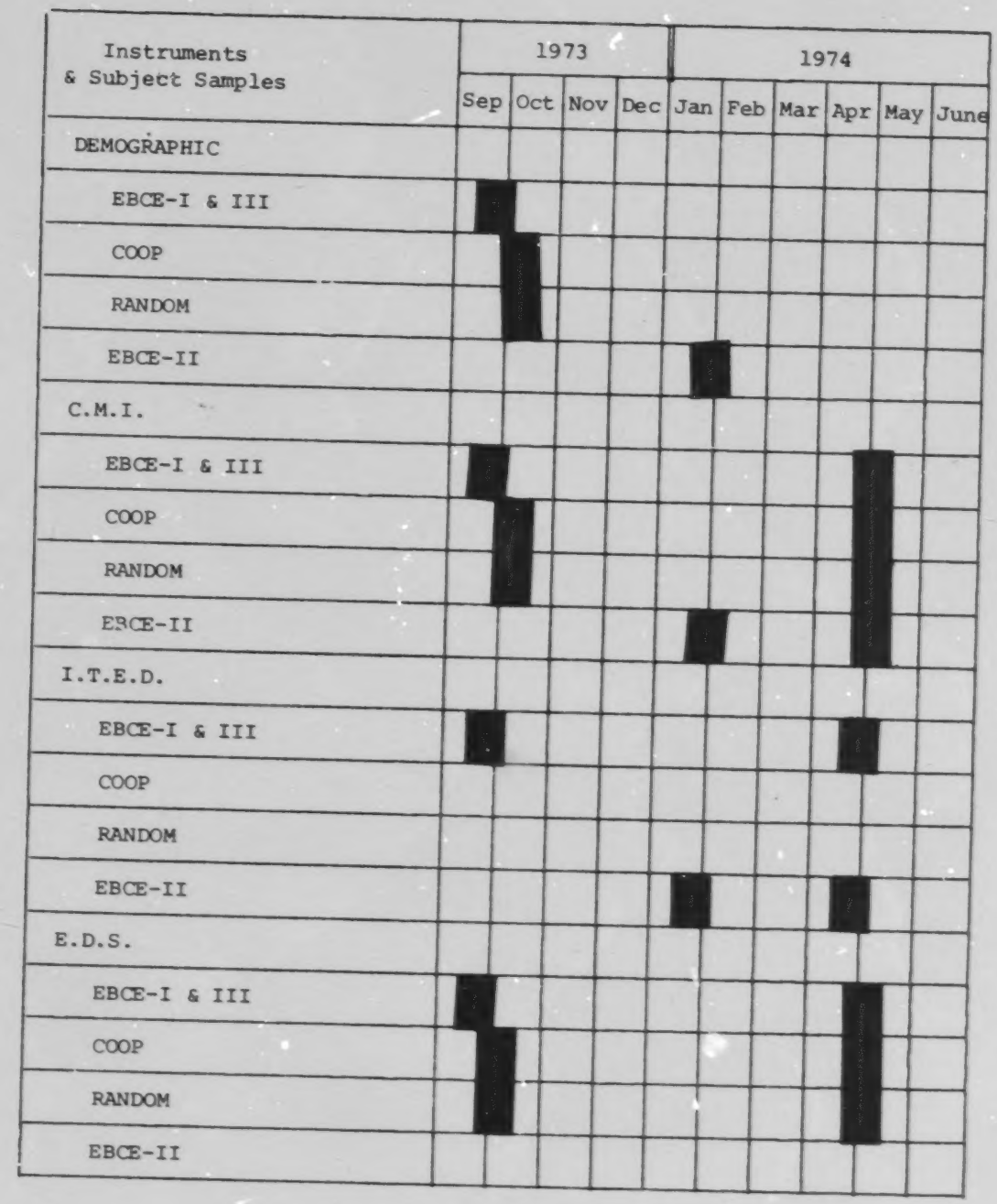

Figure 3-A

Instrument Administration Schedule

A1

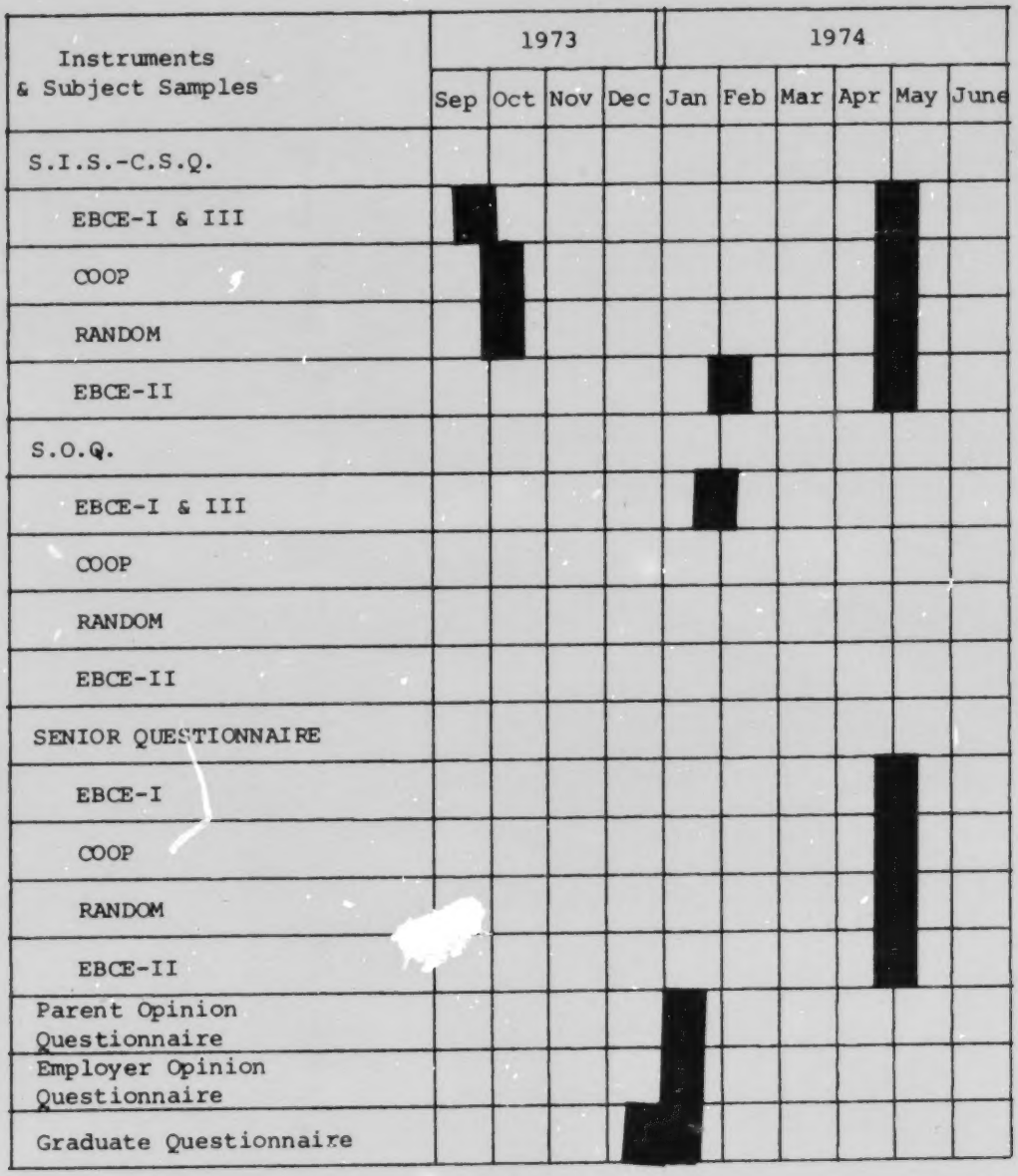

Figure 3-A (Continued)

Instrument Administration Schedule (Continued)

hypothesis, give the data collected to test each hypothesis, along with a description of the findings, and a summary.

A. Hypothesis #1

The first hypothesis to be tested was that EBCE students will become more knowledgeable of the World of Work than students from either comparison group.

1. Data Source

This hypothesis was interpreted to mean that EBCE students would show more growth in knowledge of the World of Work than comparison group students. The data used to test this hypothesis were obtained from Part 2 of the Career Maturity Inventory's Competency Scale, Knowing About Jobs (Appendix B). This instrument was administered to all EBCE students and to all comparison group students as a pretest and post-test. EBCE-II students were administered the pretest in January of 1974 upon entry into the EBCE Program. All other students were administered the pretest in September or October of 1973. Data were also collected from EBCE parents and students by interview to obtain their perceptions about the usefulness of the program in achieving knowledge of the World of Work.

2. Findings

a. CMI

Mean scores on Part 2 of the CMI for the four groups of seniors were compared to determine if there were differences among groups on the pretest, to determine if

there was overall growth on the scale, and to determine if there were differences among groups in their growth pattern (Tables 3-2 and 3-3, and Figure 3-B). There were no significant differences on any of the three analyses.

Part 2 of the CMI scale has a maximum of twenty (20) points. The range of the means on the pretest was 16.84 to 17.7. Because initial scores were high, there was small range for improvement at the top of the scale. The three groups which were directly involved in a programmatic work experience (EBCE-I, EBCE-II, and COOP) did have positive gains on this scale, and the RANDOM group showed a slight decline.

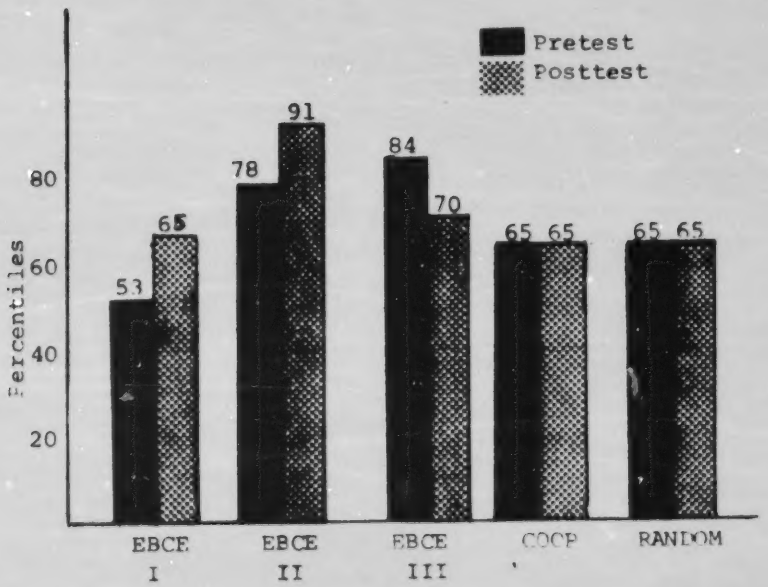

Figure 3-B

Part 2: Knowing About Jobs (Occupational Information)

Table 3-2

Career Maturity Inventory Means and Standard Deviations

	Knowing Yourself Part 1		Knowing About Jobs Part 2		Choosing A Job Part 3		Looking Ahead Part 4		What Should They Do Part 5		Attitude Part 6	
	x	SD	x	SD	x	SD	x	SD	x	SD	x	SD
EBCE-I (n=44)												
Pretest	13.7	3.70	16.4	3.58	13.0	3.07	12.8	3.81	11.1	3.02	34.5	5.23
Posttest	14.1	4.08	16.6	3.42	14.5	3.61	14.3	3.90	11.8	3.28	36.4	5.15
EBCE-II (n=43)												
Pretest	14.7	2.39	17.7	2.59	15.0	2.77	14.7	3.49	12.2	3.93	35.9	5.84
Posttest	15.4	2.52	18.5	1.53	16.0	2.24	15.6	2.79	12.7	3.04	39.0	5.13
EBCE-III (n=5)												
Pretest	16.0	2.24	17.8	1.48	12.8	1.64	11.2	1.10	11.8	2.59	32.6	2.88
Posttest	13.0	2.35	17.0	1.00	14.4	2.97	13.4	3.05	11.4	2.19	39.4	1.52
COOP (n=70)												
Pretest	14.3	3.23	17.0	2.85	14.3	3.35	14.7	2.99	12.6	2.94	37.8	4.36
Posttest	14.7	3.06	17.4	2.32	14.5	2.33	14.3	3.44	12.2	2.35	38.8	5.35
RANDOM (n=114)												
Pretest	14.5	3.54	17.2	3.11	14.5	3.27	14.1	3.71	12.5	3.29	36.5	5.67
Posttest	15.0	3.39	17.2	3.70	14.5	3.70	14.6	3.49	12.7	3.50	37.5	5.97

Table 3-3

Career Maturity Inventory Univariate Analysis

	Pretest		Overall Growth		Group Growth	
	F	α Value	F	α Value	F	α Value
Attitude	3.10	.05	26.63	.01	3.63	.05
Knowing Yourself	.79		3.80		.35	
Knowing About Jobs	1.30		2.05		1.18	
Choosing A Job	3.00	.05	4.90	.05	2.09	
Looking Ahead	2.98	.05	5.24	.05	2.55	.10
What Should They Do	2.04		1.18		1.07	
	df=(3,267)		df=(1,267)		df=(3,267)	

b. Student Questionnaire

At the end of the year all students were requested to identify from a given list of adjectives three which best described how well their educational program prepared them for a career (Appendix B). A student's score was calculated by assigning the value 3 to each of the positive adjectives selected (good, relevant, valuable, exciting, and meaningful) and the value 1 to the negative adjectives selected (bad, worthless, meaningless, irrelevant, and boring). The score was then obtained by summing the three assigned values. The student scores could be 9 (very positive), 7 (somewhat positive), 5 (somewhat negative), or 3 (very negative). A mean score of 6 was considered neutral.

A significant difference was found in the mean scores of the four groups of students on the variable designed to assess how well their educational program had prepared the students for their chosen career (Table 3-4). EBCE students were more positive than the comparison group students. The most positive group was EBCE-II; the least positive group was COOP.

c. Parent Interview

A random sample of 20 parents was interviewed at the end of the school year on the value of the EBCE Program in providing learning experiences about occupations. All twenty parents stated that the EBCE Program provided more opportunity than regular school to learn about careers.

Table 3-4

A Comparison Among the Four Samples in Terms of the Posttest Only Criteria

Variable	Group Means				F	α Value
	EBCE-I	EBCE-II	COOP	RANDOM		
Credit Received in Academic Subjects	2.35	1.95	1.19	1.52	9.16	.01
Long Range Goal Certainty Estimate	1.55	1.98	1.53	1.61	2.01	
Feelings Regarding Educational Program	8.10	8.77	7.21	7.40	10.26	.01
Progress in Relation to Career Preparations	7.67	8.33	7.00	7.32	4.89	.01
Progress in Relation to Post-Secondary Training	7.55	8.40	7.47	7.57	3.23	.05

Parents were also asked to identify what effect the EBCE Program had on helping students to form career plans. Of twenty parents interviewed, fifteen responded that the EBCE Program was directly responsible for their child's career plans. Two parents responded that the EBCE Program had no effect on career choice, two parents did not know, and one parent stated that his child had not been in the program long enough. A more detailed description of the interview and results can be found in Section 4 of this report.

3. Summary

Hypothesis #1 was partially accepted; although the scores from Part 2 of the CMI did not indicate significant growth in knowledge of jobs or significant differences in the growth of the four groups of students, the data gathered from student questionnaires and parent interviews indicated that EBCE students were perceived as having made valuable growth in their knowledge of the World of Work. Due to the high scores mentioned previously, it is questionable whether Part 2 of the CMI Competency Scale was sufficiently sensitive to identify growth in this area.

B. Hypothesis #2

The next hypothesis was that EBCE students will be more capable of locating and acquiring work than comparison group students.

1. Data Source

This hypothesis can best be assessed after graduates have had a chance to apply for and secure a job. No data are available

for comparisons at this time of the four groups of seniors. Data will be collected from these students during FY 75. However, some data were collected from the FY 73 EBCE graduates via questionnaire.

2. Findings

Of a possible 44 FY 73 graduates, 33 responded to a mailed questionnaire. Sixteen of the graduates were participating in some type of post high school training, nineteen were either working full time (thirteen) or working and going to school (six). Five of the respondents were neither working nor going to school.

None of the graduates going to post-secondary schools had difficulty in getting into the school of their choice. Eleven of nineteen graduates who were working indicated no difficulty in getting a job, whereas eight had some difficulty. Eight of eighteen had never been turned down for a job for which they had applied. A detailed description of this questionnaire and its results can be found in the Interim Evaluation Report of March, 1974.

3. Summary

Hypothesis #2 was not tested. No comparative data has been collected from the FY 74 graduates, the data collected from the FY 73 EBCE graduates indicated that most graduates had no difficulty getting jobs. The findings showed that EBCE students who had graduated a year prior had been able to locate and acquire work.

C. Hypothesis #3

The third hypothesis was that EBCE students will do as well as the comparison groups in scholastic growth.

1. Data Source

Data sources used to evaluate this hypothesis were the subscores on the EDS (Appendix B) and the subscores from the ITED (Appendix B). All students were administered the EDS during the fall of their eleventh grade year. EBCE-I, COOP, and RANDOM group students were administered the EDS in September or October of 1973, and again in April of 1974. A matrix sampling scheme was used in administering the EDS tests so that no student had more than one hour (one or two subtests) of the achievement test battery. All EBCE students were administered the complete battery of the ITED upon entry into the EBCE program and again in April. Comparison groups were not given the ITED.

2. Findings

a. EDS

A multivariate analysis of variance was used to compare the EDS pretest mean scores on the six subtests over the three groups of students. A F value of 1.87 (d.f.= 12,450) was found to be significant at $\alpha \leq .05$ (Table 3-5). A subsequent univariate analysis on each subtest over the three groups indicated significant differences between the three groups on the Reading and Mathematics subtests (Table 3-6). The RANDOM group means pretest were largest and the EBCE-I group means were the smallest.

Table 3-5

Educational Development Series Raw Score Means

	Reading		English		Math		Science		USA In The World		Solving Problems	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
EBCE-I (n=44)												
Pretest	39.1	6.2	32.9	4.8	26.8	4.2	39.9	6.0	34.8	5.4	37.4	3.6
Posttest	40.2	4.8	32.8	5.8	26.9	5.6	40.0	5.9	35.7	4.2	37.8	3.1
COOP (n=70)												
Pretest	39.6	5.5	33.1	6.3	28.1	3.5	38.5	6.3	35.9	6.2	38.7	4.8
Posttest	40.5	4.9	35.2	4.5	27.7	4.6	39.2	5.9	35.4	5.5	38.4	3.6
RANDOM (n=114)												
Pretest	40.8	6.7	35.3	6.6	28.5	6.0	40.1	5.9	35.8	6.0	37.8	4.8
Posttest	42.5	7.3	36.0	6.2	28.7	5.7	40.6	3.7	35.8	6.2	38.4	4.3

Table 3-6

Educational Development Series Univariate Analysis

	Pretest		Overall Growth		Group Growth	
	F	α Value	F	α Value	F	α Value
Reading	3.62	.05	15.00	.01	.48	
English	1.55		12.55	.05	4.63	.01
Math	4.01	.05	.00		.45	
Science	2.07		2.71		.35	
USA in the World	1.62		.01		1.17	
Solving Problems	.58		1.27		1.03	
	df=(2,224)		df=(1,224)		df=(2,224)	

A multivariate analysis of variance was used to determine if there was significant growth on the six subtests over all groups of students. (A F value of 4.09 (d.f.=6,225) was found to be significant at $\alpha \leq .001$. A subsequent univariate analysis on each subtest found the significant growth of all groups combined was in the Reading and English subtests.

A multivariate analysis of the mean gain scores for each of the six subtests by group indicated no overall group differences. However, the univariate analysis did indicate differences between groups on the English subtest with the COOP students showing the greatest gains.

b. ITED

Although not specifically related to the hypothesis the ITED pre and posttest mean scores of the three EBCE groups were examined to determine if growth occurred and if so, where the growth occurred (Table 3-7 and 3-8). Figure 3-C indicates how the EBCE students compared with national norms and where change took place. A univariate analysis of variance on each of the subtests over all EBCE students indicated there was significant growth in Reading Comprehension, Language Arts, Mathematics, and in Science. Eleventh grade EBCE students (n=5) demonstrated the greatest overall growth and EBCE-II students demonstrated as much academic growth as the EBCE-I students (Table 3-7).

3. Summary

Hypothesis #3 was accepted; the findings showed that the EBCE students did do as well as the comparison groups on scholastic growth.

Table 3-7

Iowa Tests of Educational Development Raw Score Means

	Reading		Language Arts		Math		Social Studies		Science		Use of Sources	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
EBCE-I (n=44)												
Pretest	46.3	19.9	39.9	15.0	11.5	6.5	22.3	7.9	23.7	9.1	21.5	8.4
Posttest	51.5	19.7	40.7	14.2	13.5	6.9	24.8	7.4	27.0	10.1	23.3	9.3
EBCE-II (n-43)												
Pretest	57.1	19.7	50.0	17.9	14.7	7.4	28.0	7.7	29.0	10.1	27.6	9.4
Posttest	61.1	18.2	52.4	17.9	15.3	7.6	28.3	8.2	29.4	9.0	28.3	8.8
EBCE-III (n=5)												
Pretest	40.2	5.2	33.0	12.7	9.4	2.7	21.8	4.5	20.6	4.3	18.6	4.6
Posttest	47.6	6.2	37.6	11.4	11.2	4.4	24.2	3.3	24.4	6.4	22.2	4.8

Table 3-8

Iowa Tests of Educational Development Univariate Analysis

	Pretest		Overall Growth		Group Growth	
	F	α Value	F	α Value	F	α Value
Reading	4.78	.05	10.65	.01	.23	
Language Arts	6.57	.01	4.20	.05	3.37	.10
Math	3.67	.05	5.17	.05	.27	
Social Studies	7.38	.01	2.40		1.50	
Science	3.45	.10	3.33	.10	1.09	
Use of Sources	6.82	.01	2.36		.00	
	df=(2,89)		df=(1,89)		df=(2,89)	

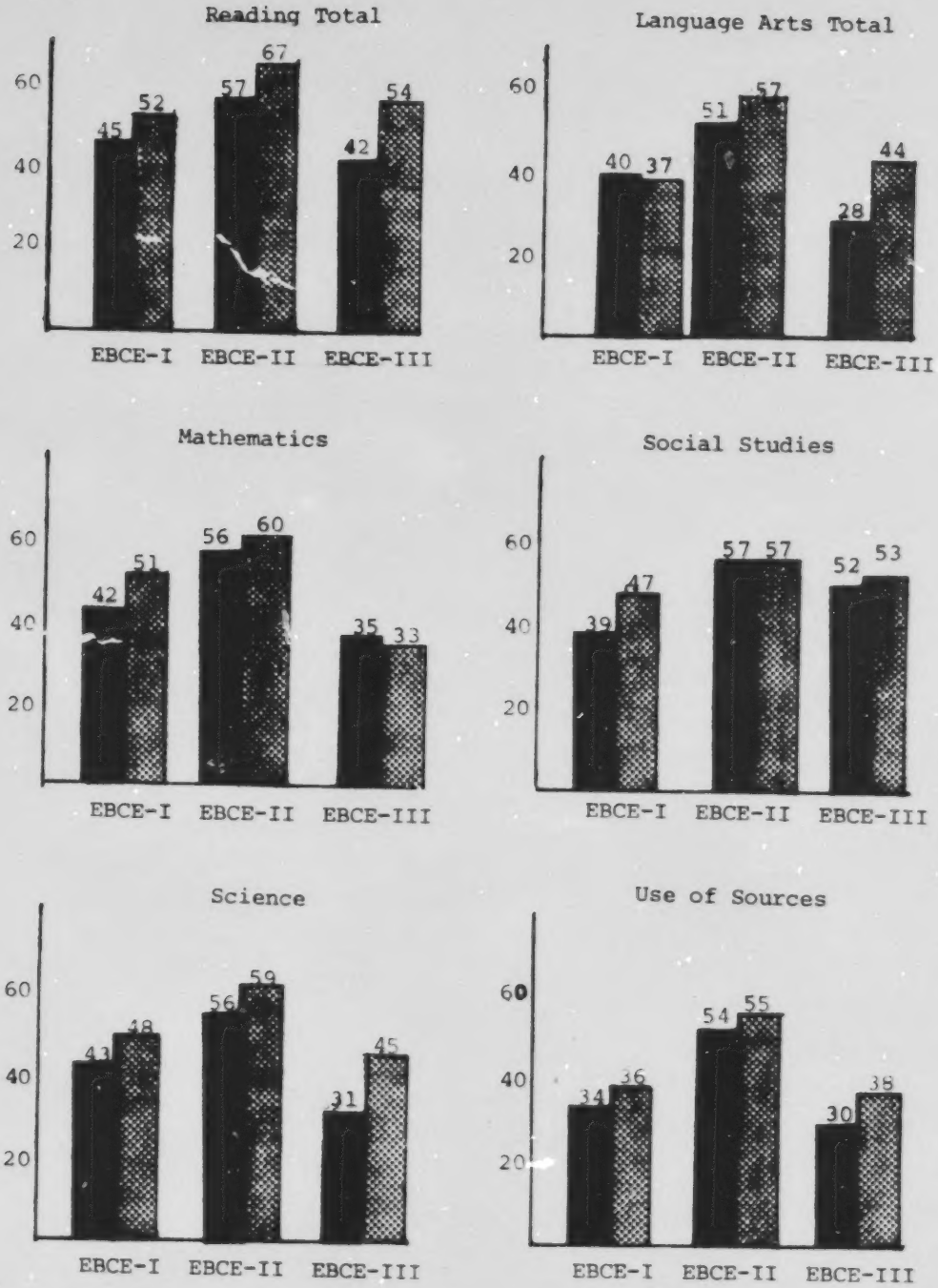

Figure 3-C

Iowa Test of Educational Development Percentile Ranking

D. Hypothesis #4

The next hypothesis was that EBCE students will be more positive in their attitude toward the World of Work than the students from either comparison group.

1. Data Source

This hypothesis was interpreted to mean that EBCE students would show more growth in their attitude toward the World of Work than the students from the comparison groups. The data used to test this hypothesis were obtained from the Attitude Scale of the CMI (Appendix B). This instrument was administered to all students as a pretest and posttest.

2. Findings

Mean scores on the Attitude Scale of the CMI for the four groups of seniors were compared to determine if there were differences among groups on the pretest, to determine if there was overall growth, and to determine if there were differences among groups in growth patterns (Tables 3-2 and 3-3 and Figure 3-D).

The univariate analysis of pretest means indicated that there were significant differences between groups. The Scheffe' test was applied to the pretest means of the EBCE-I, COOP, and RANDOM group students. The EBCE-II students were excluded since they were administered the pretest at a later date. It was found that the COOP group students scored significantly higher on the pretest than the EBCE-I or RANDOM students (Table 3-3). A mean gain score was calculated and examined to determine if there was overall growth on this scale. The univariate F was

significant. A mean gain score was calculated for each of the four groups and examined to determine if there were any differences among groups. The univariate F was significant. The Scheffe' test was applied to the four means to locate the specific differences between the four groups. The EBCE-II students demonstrated a larger gain than either comparison gorup. Significant differences were not found between comparison groups or between the two EBCE groups (Table 3-9).

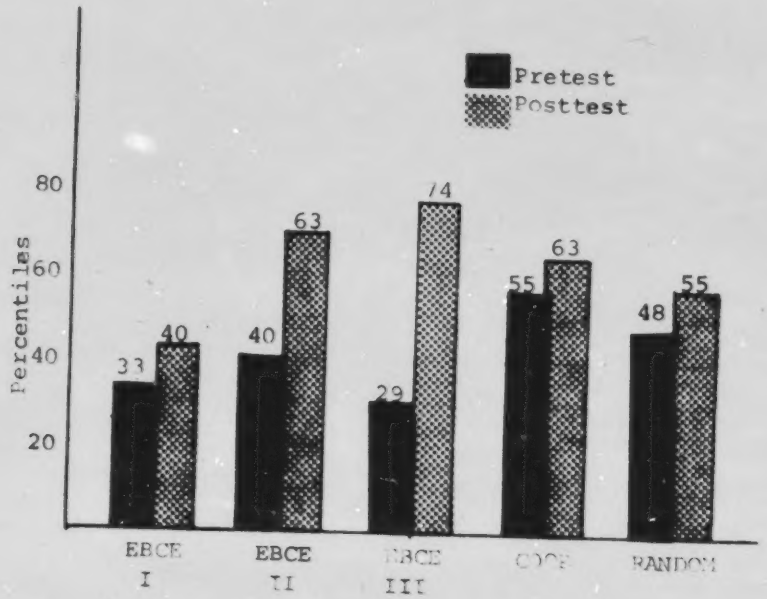

Figure 3-D
Attitude Scale

3. Summary

Hypothesis #4 was accepted. The findings showed that the EBCE students did have larger gains in their attitude toward the World of Work.

Table 3-9

Scheffe' Test Results

CMI				
Attitude Scale	3.12_B	2.03_A	$.95_D$	$.58_C$
Part 4: Looking Ahead	1.22_A	$.85_B$	$.48_D$	$-.37_C$
EDS				
English	2.09_C	$.67_D$	$.07_A$	
SIS-CSQ				
Cognitive Skills	1.70_B	$.59_A$	$-.15_D$	$-.95_C$
Maturity	3.87_C	3.37_D	1.58_B	$.65_A$
Reality	1.54_D	$-.20_A$	$-.26_C$	$-.91_B$
Vocational Readiness	5.60_D	$.41_C$	$-.95_A$	-4.10_B

A = EBCE-I B = EBCE-II C = COOP D = RANDOM

Gain means which are similar are grouped with a line. Means were determined different if the Scheffe' F was significant at the .05 or less.

E. Hypothesis #5

The fifth hypothesis was that EBCE students will be more capable of planning for their future than the students from either comparison group.

1. Data Source

This hypothesis was interpreted to mean that EBCE students would show more growth in their ability to plan for their future than students from the comparison groups. The data used to test this hypothesis were obtained from Part 4 of the Career Maturity Inventory's Competency Scale, Looking Ahead (Appendix B). This instrument was administered to all students as a pretest and posttest.

2. Findings

Mean scores on the pretest of Part 4 of the CMI were examined to determine if there were differences between groups. Although the univariate analysis of the pretest means did indicate significant differences for the EBCE-I students, COOP students, and RANDOM students, the specific differences were not identified when the Scheffe' test was applied (Tables 3-2 and 3-3 and Figure 3-E).

The analysis of the mean gain scores for all students on this variable indicated significant overall growth. A subsequent analysis of mean gain scores for each group of students indicated significant differences between group gains. The Scheffe' test was applied to the mean scores to locate the specific differences. The EBCE-I students demonstrated a

larger gain than either comparison group. No significant differences were found between comparison groups or between the two EBCE groups (Table 3-9).

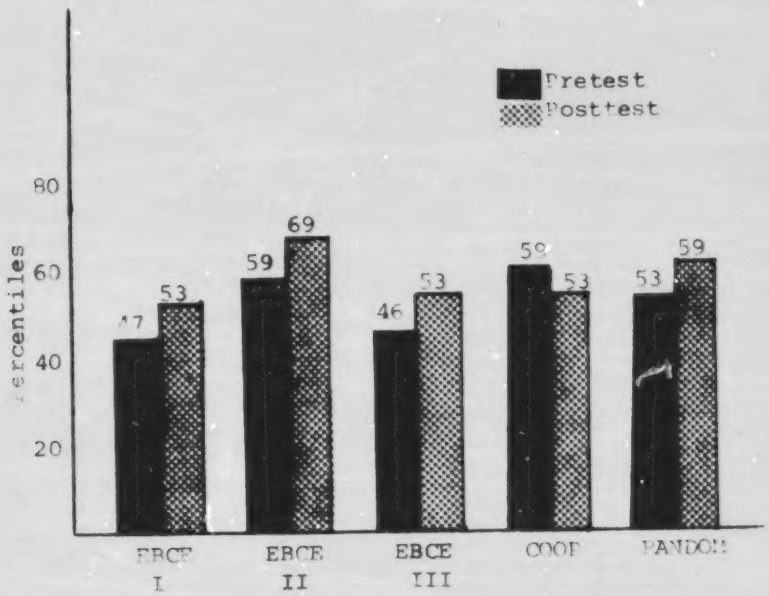

Figure 3-E

Part 4: Looking Ahead (Planning)

3. Summary

Hypothesis #5 was accepted. The findings showed that the EBCE students did have larger gains in their ability to plan for their future than the comparison group students.

F. Hypothesis #6

The sixth hypothesis is that EBCE students will be more capable of solving the problems confronting them in reaching their goals than the students from either comparison group.

1. Data Source

This hypothesis was interpreted to mean that EBCE students would show more growth in their capability of solving the problems confronting them in reaching their goals than the comparison group students. The data used to test this hypothesis were obtained from Part 5 of the Career Maturity Inventory's Competency Scale, What Should They Do (Appendix B) and from the EDS subtest, Solving Problems (Appendix B).

2. Findings

a. CMI - Part 5

Mean scores on the pretest of Part 5 of the CMI were examined to determine if there were any differences between groups. None were identified. Mean gain scores were analyzed to determine if there was any overall growth or any differences in the growth among groups (Tables 3-2 and 3-3 and Figure 3-F). No significant growth was indicated and no differences in gains among groups were identified.

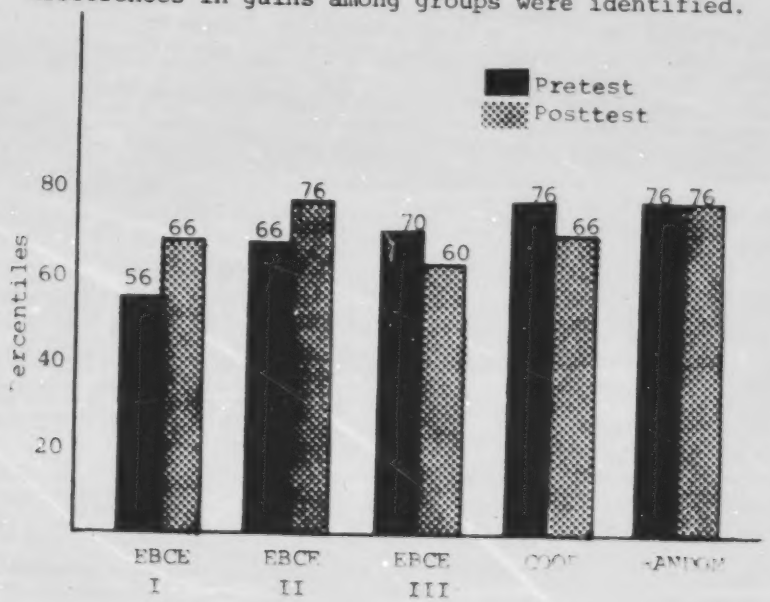

Figure 3-F

Part 5: What Should They Do (Problem Solving)

b. EDS - Solving Problems

Mean gain scores on the EDS subtest, Solving Problems, were examined to determine if there were any differences between groups. No significant differences were identified (Table 3-6).

3. Summary

Hypothesis #6 was rejected. The findings showed that EBCE students did as well as the comparison students in growth on problem solving ability.

G. Hypothesis #7

The next hypothesis was that EBCE students will be more capable of appraising the career relevant capabilities of others than the students from either comparison group.

1. Data Source

The primary concern indirectly expressed by this hypothesis was students' ability to know themselves. It was decided that the best available source of data to measure how well students were able to know themselves was to use the scores from Part 1 of the Career Maturity Inventory's Competency Scale, Knowing Yourself. This scale provides an indirect measure of the variable by having the students appraise the career capabilities of other students through case studies (Appendix B).

2. Findings

Analysis of the pretest means on Part 1 of the CMI revealed no apparent differences between groups (Tables 3-2 and 3-3 and

Figure 3-G). The analysis of the overall mean gain score and the group mean gain scores likewise revealed no significant growth or differences in growth among groups on this scale.

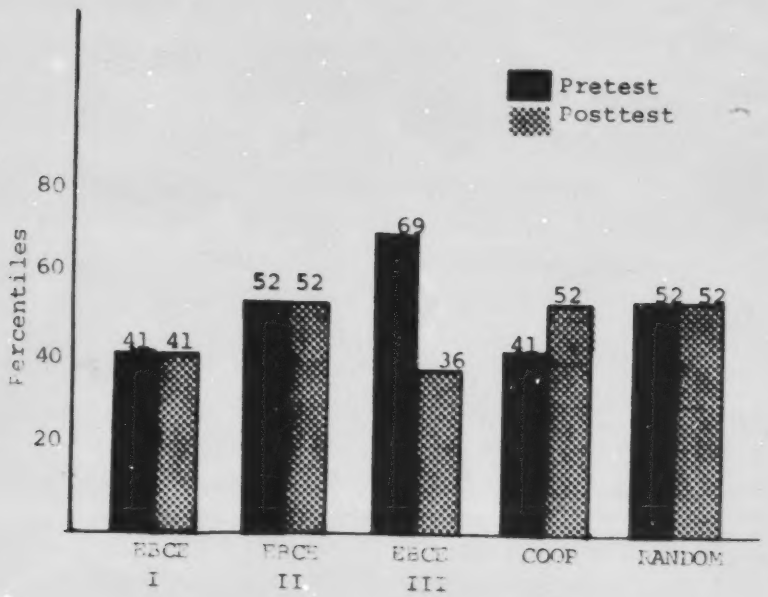

Figure 3 G

Part 1: Knowing Yourself (Self-Appraisal)

3. Summary

Hypothesis #7 was rejected. The findings showed that EBCE students did as well as comparison students in their capability of appraising the career relevant capabilities of others.

H. Hypothesis #8

The eighth hypothesis was that EBCE students will be more able to choose reliastic career goals than the students from either comparison group.

1. Data Source

This hypothesis was interpreted to mean that the EBCE students would show more growth in their ability to choose realistic career goals than the comparison students. The data used to test this hypothesis were obtained from Part 3 of the Career Maturity Inventory's Competency Scale, Choosing a Job (Appendix B) and from a review of the case studies presented in Section 5 of this report.

2. Findings

a. CMI - Part 3

The analysis of the pretest means on Part 3 of the CMI revealed significant differences among groups (Tables 3-2 and 3-3 and Figure 3-H). The RANDOM group students scored highest and the EBCE-I students lowest on the pretest.

The analysis of the overall growth mean of the students on this scale revealed that students demonstrated significant growth in their ability to choose realistic jobs. Although analysis of the group means did not indicate significant differences between groups, apparent gains by the EBCE students were indicated.

b. Case Study Review

A review of the EBCE case studies strongly indicated that the EBCE students were using various indicators to eliminate some pre-EBCE program career plans and to pursue new career plans as a result of their academic studies and various career exposures.

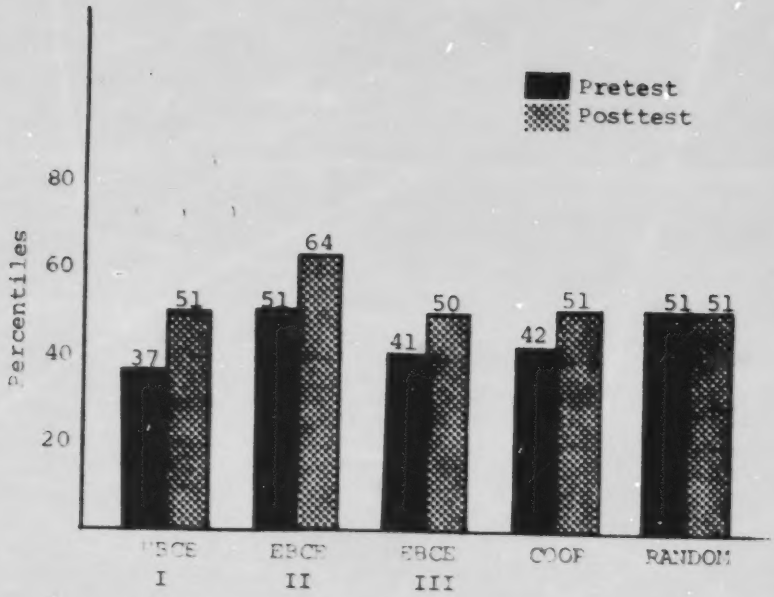

Figure 3-H
Part 3: Choosing a Job (Goal Selection)

3. Summary

Hypothesis #8 was partially accepted. The findings showed that the EBCE students and comparison group students were similar in their ability to choose realistic career goals.

I. Hypothesis #9

The next hypothesis was that there will be a lower relative frequency of school dropouts from the EBCE project than from the Kanawha County schools.

1. Data Source

One intent of the AEL/EBCE Program is to prevent students from dropping out of school. The stress in this hypothesis is on school

65

dropout as contrasted to program dropout. The data source used to compare school dropouts was the actual number of students who dropped out of school without graduating from the EBCE groups and from the comparison groups schools.

2. Findings

A total of 95 students enrolled in the EBCE Program during FY 74. Eleven of the 95 students left the EBCE Program during the year, some after being in the program one to ten days and others after being in the program one semester. Ten of the eleven EBCE withdrawals reentered the Kanawha County schools and graduated. One student left the EBCE Program (after one week) and the Kanawha County schools and was considered a school dropout (a relative frequency of .011). A total of 177 students from the Kanawha County schools were selected for the two comparison groups and took the pretests. From this group, 134 students were administered the posttests. School officials examined the records of the remaining 43 students and found that one student had dropped out of school (a relative frequency of .006). Although it was assumed by program staff that the EBCE Program had a large number of students with a high potential for being school dropouts, objective data confirmed this notion was not available.

3. Summary

Hypothesis #9 was rejected. The findings showed that the EBCE students and comparison group students had seldom dropped out of school.

J. Hypothesis #10

The tenth hypothesis was that EBCE parents will have a positive attitude toward the EBCE program.

1. Data Source

The data used to test this hypothesis were from the Parent Opinion Survey administered at midyear and a Parent Interview administered at the close of the school year.

2. Findings

a. Parent Opinion Survey

Parents were very positive toward all aspects of the EBCE Program, particularly in their feelings about their child's interest in the EBCE Program. 23 of 28 respondents gave the top rating to an item soliciting information about the interest of their child in the EBCE Program. 26 of 28 respondents indicated they would want their child to participate in the EBCE Program again if they again had the choice to make. A complete description of the instrument and responses can be found in the Interim Evaluation Report of March, 1974.

b. Parent Interview

Twenty parents were randomly selected in June of 1974 and interviewed to provide an end-of-year evaluation of the EBCE Program. Most of the parents said they would encourage their child to enroll in the program again if they had it to do over (eighteen of twenty responded in the affirmative). Sixteen of the twenty parents felt that the EBCE Program was superior to the past school experiences of their child, two

felt that the EBCE Program was similar, and two felt they could not make a judgment. All parents were able to identify some positive effects of the EBCE Program on their child, whereas only one parent could identify a negative effect. A complete description of the interview and results can be found in Section 4 of this report.

3. Summary

Hypothesis #10 was accepted. The findings showed that the EBCE parents did have a positive attitude toward the EBCE Program.

K. Hypothesis #11

The next hypothesis was that various levels of employers (i.e., resource persons, contact persons, and managers) will have a positive attitude toward the EBCE Program.

1. Data Source

The data used to test this hypothesis were from an Employer Questionnaire administered in January of 1974, and an Employer Interview administered in June, 1974.

2. Findings

a. Employer Questionnaire

Questionnaires were mailed to Resource Persons at 52 different experience sites in January of 1974. Thirty-three resource persons from 16 different experience sites returned the completed questionnaire. The responses were generally positive to the EBCE Program. Of 31 respondents, 30 indicated they would recommend to another person that he/she also become

involved with EBCE. Twenty of 33 respondents planned to continue participating in the program, whereas the remaining thirteen respondents indicated that they did not know. It is probable that these thirteen were employees who did not feel that they were in a position to make this decision. A complete description of the instrument and responses can be found in the Interim Evaluation Report of March, 1974.

b. Employer Interview

Sixteen experience sites were randomly selected from the 100 which had cooperated with the EBCE Program during FY 74. Although there was hesitancy on the part of some employers to spend time writing evaluations of individual students or filling out mailed questionnaires, the respondents were generally positive toward the EBCE Program. All sixteen respondents indicated they intended to participate in the program the following year. An overwhelming majority (twelve of sixteen) reported that both management and employees reacted favorably to the EBCE students. The respondents were most critical of the lack of feedback received after the student leaves the site. A complete description of the interview and responses can be found in Section 4 of this report.

3. Summary

Hypothesis #11 was accepted. The findings showed that the employers were positive toward the EBCE Program.

L. Hypothesis #12

The next hypothesis was that EBCE students will have a positive attitude toward the EBCE Program.

1. Data Source

The data used to test this hypothesis were from the Student Opinion Survey and the EBCE Graduate Questionnaire, both administered in January, 1974, and from the Senior Questionnaire administered in April, 1974.

2. Findings

a. Student Opinion Survey

Students had very positive feelings toward attending EBCE and toward further participation. The mean rating on a scale which ranged from 1 (very negative) to 5 (very positive) was 4.55 on two items designed to ascertain student attitudes toward the EBCE Program. Students consistently rated the EBCE Program higher than their home schools on opportunities to learn about occupations, motivation to learn, and opportunities for general learning. A complete description of the instrument and the findings can be found in the Interim Evaluation Report of March, 1974.

b. EBCE Graduate Questionnaire

The FY 73 graduates of the EBCE Program were mailed a questionnaire in December, 1973, and in January, 1974. Generally, the graduates were positive about their EBCE experiences. The students going to post-secondary schools and who were working (n=6) agreed very strongly that the

EBCE Program had a positive effect on them. Those students not going to school or working (n=6) were somewhat negative on the extent which EBCE prepared them for college. The remaining 23 students were either in school or working.

c. Senior Questionnaire

All EBCE students and comparison group students were administered a Senior Questionnaire in April, 1974. The students were requested to rate their educational programs by selecting certain descriptive adjectives (Appendix B). The EBCE students were more positive toward their educational program than the comparison group students were toward their programs (Table 3-4).

3. Summary

Hypothesis #12 was accepted. The findings showed that EBCE students did have a positive attitude toward the EBCE Program.

M. Hypothesis #13

The next hypothesis was that labor union officials will have a positive attitude toward the EBCE Program.

1. Data Source

The data used to test this hypothesis was the number of participating labor unions and the extent of participation in the EBCE Program by labor unions.

2. Findings

Officials of thirty-six labor unions volunteered to work directly with the EBCE Program students. Two labor union officials have been active in the EBCE Community Advisory Council.

3. Summary

Hypothesis #13 was accepted. The findings indicated that labor union officials did have a positive attitude toward the EBCE Program.

N. Hypothesis #14

The next hypothesis was that the Kanawha County schools will endorse the EBCE Program for the 1974-75 school year.

1. Data Source

The data used to test this hypothesis were participation of Kanawha County school officials in FY 74 meetings and the extent of cooperation promised for FY 75.

2. Findings

The Kanawha County schools are at this time planning and preparing to start in September, 1974, an EBCE Program modeled after the AEL/EBCE Program, endorsed by the school board and supported by the superintendent of schools. Kanawha County School Board members are active members of the AEL/EBCE Advisory Committee. School board members, officers, high school principals, counselors, and teachers have cooperated with the EBCE staff at many levels of program operation, planning, and policy determination during FY 74.

3. Summary

Hypothesis #14 was accepted. The findings showed that Kanawha County schools did endorse the EBCE Program for the 1974-75 school year.

O. Hypothesis #15

The last hypothesis was that West Virginia Department of Education officials will endorse the EBCE Program.

1. Data Source

The data used to test this hypothesis were letters of endorsement and participation on committees by West Virginia Department of Education officials.

2. Findings

The state superintendent of the West Virginia Department of Education publicly endorsed the EBCE Program at a banquet honoring EBCE graduates, parents, and participating employers. Officials of the State Department have been cooperative and actively serve on the EBCE Community Advisory Committee. A written statement of endorsement has been received from the West Virginia State Department of Education and is located in the EBCE project files.

3. Summary

Hypothesis #15 has been accepted. The findings showed that West Virginia Department of Education officials have endorsed the EBCE Program.

III. Miscellaneous Outcomes

Through the course of the year many student outcomes (behaviors) were measured and analyzed which were not directly related to the stated objectives of the program. This section contains a summary report of some of these outcomes.

A. Attendance

A summary of the attendance data for the year indicated that the EBCE students were present 93 percent of the time compared to the previous non-EBCE year when they were present 91 percent of the time (Table 2-3). This change indicated a positive trend in attendance for the EBCE students. Attendance data for the comparison group students for FY 74 were not available for this report. A more extensive report of EBCE student attendance can be found in Section 4 of this report.

B. Interpersonal Skills

Perhaps the area in which the EBCE students demonstrated the greatest behavior change can be labeled "interpersonal skills". This category includes such behaviors as ability to talk with others (particularly adults), and indications of self-confidence in approaching experience sites and employers. Students, parents, and learning coordinators have indicated positive changes in these EBCE student skills. As reported in the Interim Evaluation Report, parents indicated at mid-year that one of the greatest strengths of the EBCE Program was in interpersonal development.

C. Graduation Status

A total of 95 students were enrolled in the EBCE Program at some time during the FY 74 school year. Five of the students were classified as eleventh grade at the start of the school year and eleven students left the EBCE Program during the school year. All 79 twelfth grade students who finished the program year graduated from their home high schools, and ten of the eleven who left the EBCE Program

also graduated from their home high schools. Two of the five eleventh grade students were able to successfully complete the credits needed for graduation and did graduate from their home high school.

D. Other Outcomes

The Student Information System, Confidential Student Questionnaire (SIS-CSQ) was administered to all students to provide behavior change data (Appendix B). The data from the SIS-CSQ were analyzed for eight behavior traits which were purported by the author to be highly reliable and validated (Tables 3-10 and 3-11). Significant differences in gain scores across the four groups of seniors were observed in cognitive skills, maturity, reality, and vocational readiness trait scores. The cognitive skills trait score can be interpreted as a self-concept score of cognitive skills. The maturity and vocational readiness traits appear to be representative of what might be considered ideal classroom behavior traits and therefore it is questionable that the trait is correctly labeled.

The SIS-CSQ does appear to have potential as an unobtrusive measure of affective traits, however the traits need further validating, particularly in individualized and personalized programs.

IV. Summary

The primary purpose of the summative evaluation activities during FY 74 was to gather valid and reliable data to test the 15 EBCE hypotheses. Hypotheses were generated around student achievement, student attitude, parent attitude, and employer attitude.

Table 3-10

SIS-CSQ Trait Score Means

	Cognitive Skills		Learning Attitudes		Social Adjustment		Maturity		Personal Adjustment		Flexibility		Reality		Vocational Readiness	
	x̄	SD	x	SD	x	SD	x	SD	x	SD	x	SD	x	SD	x	SD
EBCE-I (n=44)																
Pretest	24.6	5.2	15.0	3.1	58.7	9.2	34.4	5.6	34.6	5.6	20.6	5.3	31.3	6.7	47.7	7.1
Posttest	25.2	NA	15.8	NA	59.3	NA	35.1	NA	34.4	NA	20.4	NA	31.1	NA	46.7	NA
EBCE-II (n=43)																
Pretest	23.8	3.9	16.1	3.2	61.3	8.0	35.3	4.6	34.5	5.1	20.0	4.6	33.2	5.2	49.3	4.9
Posttest	25.5	NA	15.9	NA	62.2	NA	36.9	NA	35.5	NA	20.1	NA	32.3	NA	45.2	NA
COOP (n=70)																
Pretest	26.5	3.3	16.2	2.8	61.0	8.5	35.8	5.9	36.4	5.0	22.3	4.7	34.6	5.4	50.2	7.3
Posttest	25.6	NA	16.4	NA	61.3	NA	39.7	NA	35.3	NA	22.5	NA	34.3	NA	50.6	NA
RANDOM (n=114)																
Pretest	26.5	4.5	16.8	3.3	60.1	9.0	36.3	5.5	35.7	5.6	21.9	5.1	34.4	5.6	50 1	7.7
Posttest	26.4	NA	17.1	NA	62.2	NA	39.7	NA	35.5	NA	22.9	NA	35.9	NA	51.1	NA

Table 3-11

SIS-CSQ U..variate Analysis

	Pretest		Overall Growth		Group Growth	
	F	α Value	F	α Value	F	α Value
Part 1	5.92	.01	.08		4.41	.01
Part 2	4.21	.01	1.90		.74	
Part 3	.90		4.84	.05	.74	
Part 4	1.53		62.39	.01	4.10	.05
Part 5	1.64		.65		1.33	
Part 6	2.89	.05	2.11		.74	
Part 7	4.12	.01	1.35		2.82	.05
Part 8	1.49		.54		5.60	.01
	df=(3,267)		df=(1,267)		df=(3,267)	

Five groups of students contributed to the evaluation efforts; three distinct EBCE groups and two comparison groups. Students were administered achievement tests and Career Maturity Inventories on a pretest-posttest basis. Attitude data were gathered from students at midyear and again at the end of the year.

Eleven of fifteen hypotheses were either completely accepted or partially accepted, three hypotheses were rejected and one was not tested. EBCE students performed as well as the comparison students on cognitive skills and displayed a greater gain in self-concept of cognitive skills than did the comparison group students.

Important gains were made by EBCE students on certain aspects of Career Maturity as measured by the Career Maturity Inventory. In those components of the Career Maturity Inventory in which the EBCE students did not show significant gains, they did do as well as the comparison group students on the attitude scale of the Career Maturity Inventory and in their capability to plan for their future. EBCE students and comparison group students were similar in problem-solving ability, ability to choose realistic career goals, and in their ability to know themselves as measured by the Career Maturity Inventory. Although there was evidence that FY 73 graduates had very little difficulty in finding a job or school, there were no data available to make comparisons.

EBCE students and graduates, EBCE parents and cooperating employers were very positive in their expressed attitude toward the EBCE Program. Kanawha County school officials and officials from the West Virginia Department of Education have publicly endorsed and are supporting the EBCE Program.

SECTION 4

Formative Evaluation of

Experience-Based Career Education

September 1, 1973

To

June 30, 1974

I. Preface

"Evaluation is the process of delineating, obtaining, and providing information for judging decision alternatives."* A major component of evaluation is now commonly called formative evaluation, which is the assessment of program components to insure that every component works as well as possible, both in isolation and as it meshes with other components. It is a process which seeks information to answer the question, "Is this the best way we know to do this?"

In considering the various components of a program, the essential formative evaluation questions are these: Is it necessary? How good is it? How can it be improved?

The process of formative evaluation can begin with an analysis of program systems in order to identify critical components for which formative evaluation is essential or at least desirable. Since it is impossible to specify in advance all of the problems which may arise in implementing a program, flexibility is essential for carrying out the trouble-shooting efforts of formative evaluation.

When focusing on the AEL/EBCE Program as a means to deliver services to students, the program can be analyzed in terms of a set of interrelated subsystems necessary to provide those services. Such an analysis highlights the critical aspects of a program, leading to the establishment of priorities for formative evaluation. From this analysis arises a set of information needs. Specification of these needs, in turn,

---

* Daniel L. Stufflebeam, et al, Educational Evaluation and Decision Making. Ithaca, Illinois: F. E. Peacock Publisher, Inc., 1971.

suggests the kinds of information-gathering activities which must be established.

Results of formative evaluation of the AEL/EBCE Program have been designed to have an impact on the a diences served (project director, program developers, and operational managers), timelines of information, and program decision-making. In order to serve these diences effectively, the information was provided early enough to affect program operations before revision and recycling occurred.

Formative evaluation of the AEL/EBCE Program was designed to facilitate program decision-making. Most of the formative evaluation reports were first presented to the Project Director and the Director of Stabilization. Each report was then forwarded to the appropriate persons. If the report had major impact for the project as judged by the Project Director, a meeting of the decision-makers was called, some sort of solution was reached, and a means for implementing the solution discussed. If the report was of little impact, the Project Director made appropriate decisions or delegated the authority to someone else.

This section of the report is organized to provide a logical development of reporting of AEL/EBCE formative evaluation. Part I deals with the design of the Formative Evaluation Plan. Part II discusses instrumentation and testing procedures. Part III covers the student population used in formative evaluation. Part IV identifies and overviews each component of the AEL/EBCE Program. The internal process and the interdependence of each subsystem are described after the overviews. Included also in Part IV is a summary of the interim

evaluation findings. Task forces were organized to respond adequately to these findings. Recommendations contained in the Interim Evaluation Report are given special attention, and actions taken since that report are included.

Part V presents a summary of the mini studies that were conducted during the current contract year. Some of these studies attempted to answer questions generated by the formative plan while others responded to the critical needs of either the Project Director or staff.

II. Design of Formative Evaluation

The design for formative evaluation of the AEL/EBCE Program between December 1 and June 30, 1974 can be found in the Formative Evaluation Plan, which was submitted to NIE on November 1, 1973. Questions relating to formative evaluation design can be answered by referring to this document.*

III. Instrumentation and Testing Procedures

Each instrument used in AEL/EBCE's formative evaluation has a cover sheet containing the following information: instrument number, title, format, subjects and sampling, administration schedule, reliability and validity tests needed, and the key to questions contained in the Formative Evaluation Plan. All instruments except the Employer Questionnaire and the Parent Questionnaire are contained in Appendix B of the Interim Evaluation Report. The Employer Questionnaire and

---

* The Formative Evaluation Plan may be obtained from either the National Institute of Education or the Appalachia Educational Laboratory.

Parent Questionnaire are contained in Appendix C of this document. Questions about instrumentation and testing procedures can be answered by the appropriate report and cover sheets of these instruments.

IV. Student Populations

The student sample for the AEL/EBCE Program was drawn mostly from seniors in the Kanawha County School System who volunteered for the program. Five juniors were allowed to participate and were classified as special students. This group is the same as the experimental group described in Section 2 of this report. All questions about student populations for formative evaluation should refer to that section.

V. The AEL/EBCE Program

AEL/EBCE is an alternative educational program in which volunteer students engage in learning experiences at places of employment and other community sites instead of in traditional classrooms.

Students were recruited in September and in January from high schools in the Kanawha County School System. Most were high school seniors within five credits of graduation. Interested students and their parents attended a group interview to acquaint them with the program and to obtain information about student interests and needs. Program staff evaluated these interests and needs, including high school transcripts; those students who met the selection criteria were notified of their acceptance.

In September the students' year began with a ten-day orientation. In January students had a five-day orientation. Orientation included

an overview of the content areas, administracion of standardized tests, and familiarization with the various resources and procedures of the EBCE Program. Orientation concluded with individual conferences between students and learning coordinators. Learning coordinators provided direction and resources for each student to develop a personalized set of learning experiences based on the student's interests, needs, and academic requirements. Using the Program Profile (a summary of the student's needs and interests), the student and learning coordinator prepared a Program Area Descriptor (a plan for several weeks of work) for each major program area the student would pursue. In this way, activities were outlined which were intended to lead to the achievement of the student's goals.

Activities could be completed in-house, using the instructional materials and other resources of the AEL/EBCE learning center, or they could be experience-site-based activities. Students were placed at sites to do real or simulated work or to observe, remaining at the sites until the planned activities were accomplished.

The Program Area Descriptor, as previously explained, constitutes a plan for several weeks' work, to be modified as students broaden or refine their interests. Each of the planned activities was detailed on an Activity Sheet recording specific behavioral objectives, a description of the activities to be performed, and assessments by students and learning coordinators of A) the assignment, B) the student's performance, and C) goal achievement. These planned activities and associated evaluations determined and justified the awarding of academic credit required for high school graduation.

VI. Overview of Subsystems

The preceding material briefly described the EBCE system in terms of the delivery of services to students. Implementing the program required the smooth and timely functioning of four subsystems. Figure 4-A portrays these subsystems and their interdependence. The description of the operation of those subsystems in this section is based on their functioning from September, 1973, through June 30, 1974.

The following preliminary activities had to be completed for the program to function effectively: experience sites had to be developed; these sites had to be analyzed in terms of requirements, expectations, and opportunities for student learning activities; student recruitment and selection procedures had to be established; and the instructional delivery subsystem had to be operational. Additionally, certain support subsystems were developed including transportation, instructional materials, and various resource documents to be used by learning coordinators as they worked with students. These support subsystems are not defined in this document.

The remainder of this section describes the four major subsystems and presents evaluation data associated with each one. In addition, conclusions from the Interim Evaluation Report are presented. Finally, a number of mini studies are included on selected topics.

A. Experience Site Identification and Recruitment Subsystem

1. Description of the Subsystem

Because a significant portion of the instructional activities within EBCE occurs at experience sites, it is essential that a

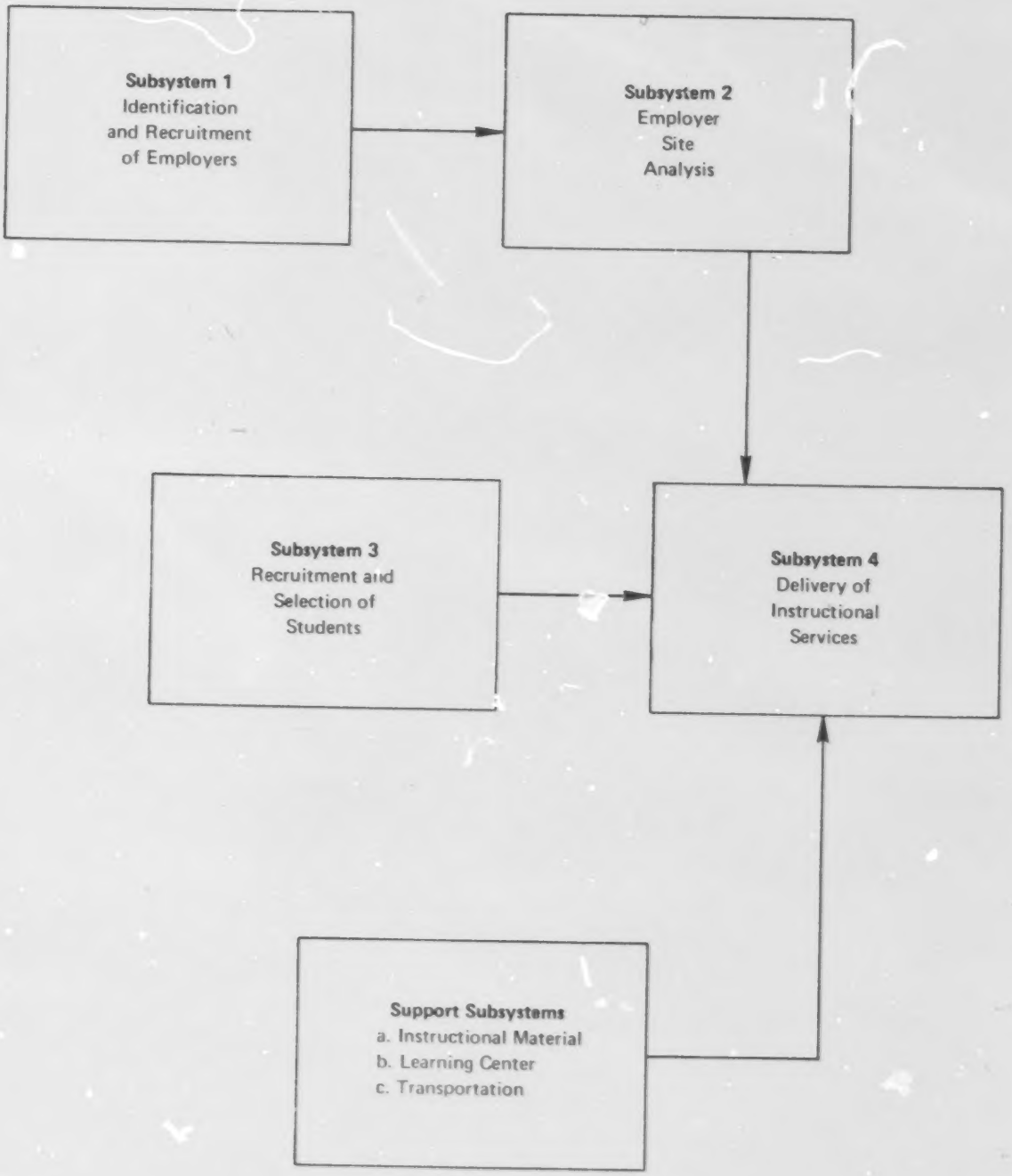

Figure 4-A

Experience Site Analysis Subsystem

number of sites be available which parallel the interests of students and the parameters established by AEL. Furthermore, such sites must provide meaningful learning experiences for students. The procedure for obtaining experience sites is portrayed in Figure 4-B.

When the AEL/EBCE Program was initiated, well-known people who were knowledgeable about the Charleston community identified potential experience sites to insure that all Office of Education Career Clusters were included. Since then, other sites have been and continue to be incorporated in order to meet student needs.

Once a potential experience site is identified the chief executive at that site is contacted, EBCE is briefly described, and an appointment is requested if the employer indicates an interest in participating. A meeting is arranged at which material describing the program is presented, questions are answered, and the employer is asked to participate. If agreement to participate is obtained, the experience site analysis is undertaken.

At this time, developing a new experience site is the joint responsibility of learning coordinators and an Experience Site Recruitment and Educational Utilization Specialist in the Design/ Development Unit.

2. Evaluation Results

The following is a summary of the conclusions presented in the Interim Evaluation Report. When that report was written, recommendations were generated from the evaluation results. Corresponding actions for each recommendation were proposed by task forces. These

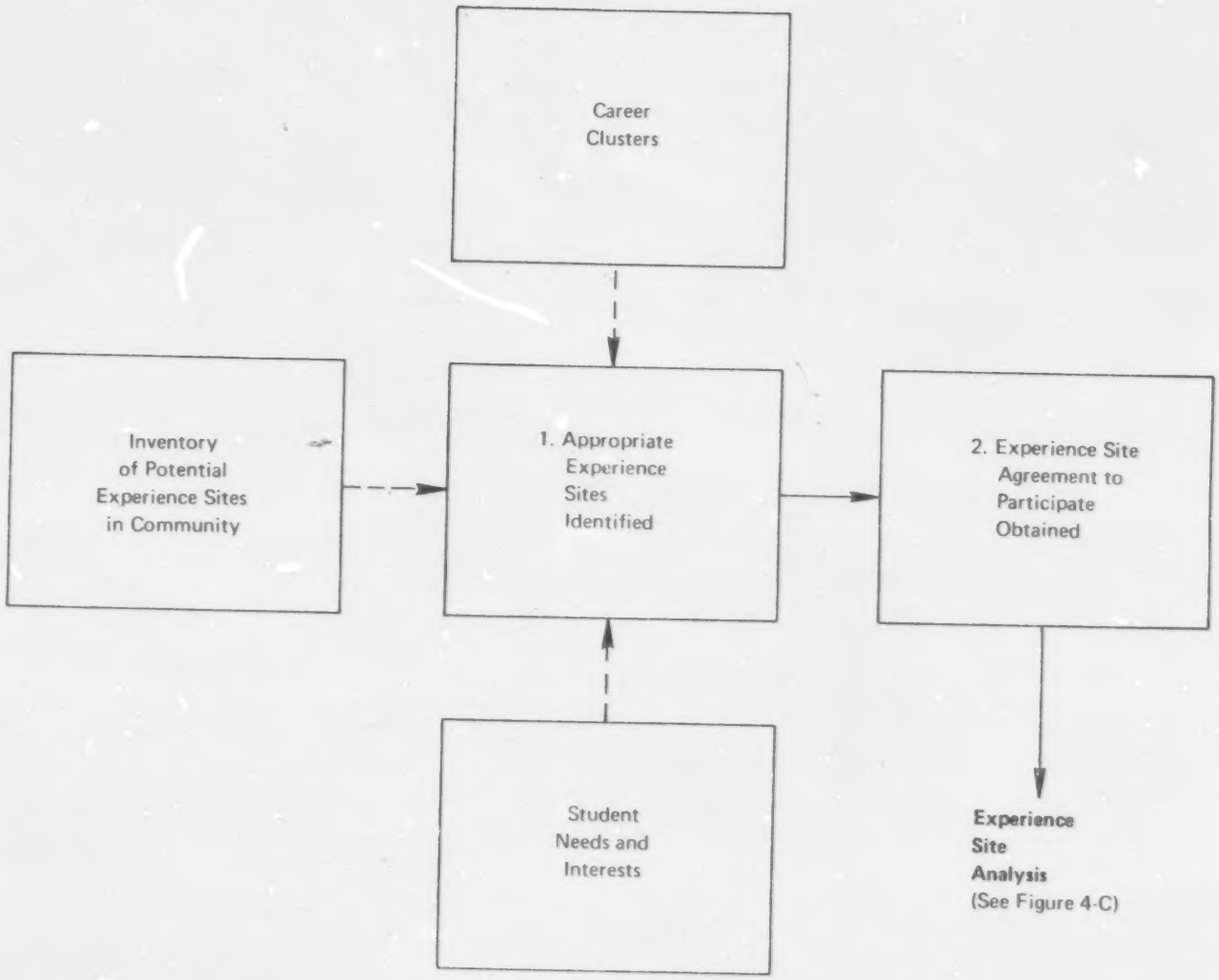
Career Clusters
Inventory of Potential Experience Sites in Community
1. Appropriate Experience Sites Identified
2. Experience Site Agreement to Participate Obtained
Student Needs and Interests
Experience Site Analysis
(See Figure 4-C)

Figure 4-B

Employer Identification and Recruitment Subsystem
January, 1974

solutions for each recommendation are reported here along with the results of the action that was taken.

a. Summary of the Interim Evaluation Report on the Experience Site Identification and Recruitment Subsystem

The Interim Evaluation Report for this subsystem covered the following areas: Public Relations Packet; Employer Participation; Employer Perception of What Happens; and Student Perceptions of Site Placements.

(1) Public Relations Packet - The relative effectiveness of the Public Relations Packet could not be evaluated since at that time it did not exist. Some public relations materials for the AEL/EBCE Program do exist and are distributed on the basis of the user's need for the information. The development of the Packet is a responsibility of the Replication Unit. When the Packet is finished, evaluation will examine both the accuracy of the information in it and the effectiveness of the Packet for all potential recipients.

(2) Employer Participation - Formative evaluation of the question, "Why do employers agree/refuse to participate?" was done in conjunction with the summative evaluation. There are two reasons why this was necessary: A) employers donate their time; therefore, it would be unwise to request information twice which could be gathered in one step; and, B) two similar questionnaires could damage the public relations between the project and employers.

The 13 resource people who indicated that they did not know the status of their participation for the following year stated that that decision was up to the experience site. The resource people indicated that primarily the EBCE staff recruits them although other company personnel and students also conduct recruiting. The site analysis team indicated that only one of the 40 sites visited did not wish to continue participating in the EBCE Program. That experience site representative stated that he was unhappy about the type of students he had worked with. The site analysis team indicated the other 39 experience sites were very receptive to EBCE.

(3) Employer Perceptions - Apparently experience site personnel feel the program is functioning as it should. Employers were asked a set of questions relating generally to education and EBCE. They were to respond by indicating what "should happen" versus what "actually happens." When a t-test was computed to determine if the means of the two ratings were statistically different, no difference was found at the .05 level of significance.

(4) Student Perceptions - Most students felt that the experience sites they were placed in represented their interest areas. The 26 percent who indicated "no, the sites did not represent their interest areas" blamed the trouble on the mechanism for site placement.

b. Recommendations, Plans, Program Action

This part includes the recommendations presented in the Interim Evaluation Report plus a description of any action taken to address these recommendations by the staff. The evaluation recommendations highlighted areas of concern and importance to the Project Director and the staff.

In Table 4-1 the recommendations for the Employer Identification and Recruitment Subsystem are presented in the first column. The plan or proposed solution is provided in the second column, and any results or actions relating to the recommendation are reported in column three.

Table 4-1

Recommendations, Plans, and Results:
Employer Identification and Recruitment Subsystem

Recommendation	Plan	Results
1) The development of the Public Relations Packet should be accomplished in time to permit an extensive evaluation.	(1) After producing a basic set of public relations materials, EBCE should package, according to the audience and the need, information about the Program. The primary purpose of these materials is to make potential consumers aware of EBCE: A secondary purpose is to provide potential consumers with comprehension of the overall program.	(1) Brochures and posters were produced Slides presenting an overview of EBCE and its instructional system were produced. Copies of all relevant news articles and programs and tapes of relevant testimonies are kept on hand. Folders in which materials are packaged for specific audiences have been developed.
(2) Communication between experience site resource people and the AEL/FBCE Program should be strengthened.	(2) EBCE staff must work through the Community Advisory Council (CAC) to develop formal feedback procedures. A resource person (RP) orientation package should be developed.	(2) Two meetings were held with the CAC and written drafts of materials were prepared. On June 3, 1974 a request was submitted to an EBCE writer to formalize the package. It was then presented to another meeting of the CAC for their reaction. On June 19, 1974, the brochure was in final copy. Graphics were done and it went to the printer during the week of June 24.
(3) The number of experience sites for each of the Worker Trait Groups (WTG) should be increased.	(3) Analysis needs to be done of WTG usage and those areas in which the Program is short. New sites should be recruited.	(3) Analysis is partially complete and will be finished when remainder of sites under contract for analysis are turned in. On June 3, 1974 the contract was 85 percent completed. Meetings were scheduled on June 21, 1974 to analyze Worker Trait Group. On August 25, 1974 90 percent of Worker Trait Group analyses were completed.

B. Experience Site Analysis Subsystem

1. Description of the Subsystem

The Experience Site Analysis Subsystem (Figure 4-C) is directly linked to the Experience Site Recruitment and Selection Subsystem. The primary outputs of the Experience Site Recruitment and Selection Subsystem are expressions of a willingness or unwillingness by employers to participate in the AEL/EBCE Program.

The Experience Site Analysis Subsystem has been developed to analyze each site. The products of the experience site analyses are Experience Site Learning Guides for every experience site. These Guides provide information which help students, learning coordinators, and employers to maximize benefits, particularly in planning.

As outlined in Figure 4-4, the first step in the subsystem is to obtain and train a site analysis team. These people can be program staff members or consultants. The training of the site analysis team revolves around Step 2, "using the forms for obtaining and recording site analysis data." Before visiting the experience site, the analysis team becomes familiar with all material previously collected on that experience site so that questions can be anticipated and answers prepared. The first time the site analysis team visits the experience site is at Step 4. The purpose of this visit is to interview both the contact person(s) and the resource person(s). The interviews are designed to obtain the following types of information about the experience sites.

1. Obtain and Train Site Analysis Team
2. Train Team to Use Forms for Obtaining and Recording Site Analysis Data
3. Review In-House Materials About Experience Sites
4. Interview Contact Persons and Resource Persons at Site
A
A
5. Analyze Task Statements and Generate Site Based Learning Activities
6. Prepare **Learning Guides** for Each Site
7. Interview Experience Site Representatives to Validate **Learning Guides**
8. Distribute Validated **Learning Guides** to Learning Coordinators
Instructional Delivery System (See Figure 4-E)

Figure 4-C

Experience Site Analysis Subsystem

- Logistical information - Is there adequate parking? Is there a cafeteria on the premises? When does the working day begin and end? etc.
- Description of experience site - This description includes both general and specific information about the purpose of the experience site.
- Task statements - These are tasks identified by mutual agreement that either the students might observe or in which they might actually become involved as part of their learning experiences.
- Information on possible learning activities - This includes activities and projects a student may do at a specific site and gives the prerequisites a student needs to participate in an activity.

Based on the information obtained in Step 4, the task statements are analyzed and learning activities for students are generated for that site. Combining the other information collected in Step 4 plus task statements and the learning activities which have been generated, Learning Guides are developed for each site. Since the learning activities in the Learning Guide are not written at the experience site, an additional visit to the site is made to validate all information contained in the Learning Guide. After the Learning Guide is validated, it is distributed to learning coordinators for use with students. As mentioned earlier, the Learning Guide is the product of the Experience Site Analysis. This product then becomes a tool for the delivery of instruction.

2. Evaluation Results

The following is a summary of the conclusions presented in the Interim Evaluation Report. When that report was written, recommendations were generated from the evaluation results. Corresponding actions for each recommendation were proposed by task forces. These solutions for each recommendation are reported here along with the results of the action that was taken.

a. Summary of Interim Evaluation Report on the Experience Site Analysis Subsystem

The Interim Evaluation Report for this subsystem dealt with the following: Effectiveness of training of site analysis team; Time required for site analysis; Translating site analysis information into Learning Guides; and Usefulness of Learning Guide to learning coordinators and students.

(1) Effectiveness of Training of Site Analysis Team - Based on the congruence of information received from the Design staff and the site analysis team, the training needed by the analysis team is clearly understood by both groups. Effectiveness of the training is substantiated by the number of experience sites that were analyzed. Of the 40 experience sites, 39 indicated a continuing interest in the project. One indicated an unwillingness to continue participating because of the students that were sent.

(2) Time Required for Site Analysis - A discrepancy was found in the estimates for average time/site analysis. The Design staff indicated 12 hours were needed. The site

analysis team estimated three to three and one-half hours with one to one and one-half hours needed for interviewing the experience site personnel.

(3) Translating Site Analysis into Learning Guides - No discrepancies were found when the Design staff and the site analysis team were interviewed about the translation of site analysis information into Learning Guides, the average time required per Guide, and difficulties encountered.

(4) Usefulness of Learning Guides - Learning coordinators were mixed in their statements about use of the Learning Guides. Three indicated they were used and three indicated they were not used. Learning coordinators who gave negative responses indicated that all Learning Guides were not available; therefore, their usefulness was questioned. It should be noted that 54 Learning Guides have been developed but only nine have been delivered from the printers. Learning coordinators indicated that the usefulness of the Learning Guides would be increased if examples of activities were located in each Guide. The students answering the question of Learning Guide usefulness responded positively in most cases.

b. Recommendations, Plans and Program Action

This part includes the recommendations presented in the Interim Evaluation Report plus a description of the action taken by the staff since the Report. The formative evaluation

recommendations of the Interim Evaluation Report highlighted areas of concern for both the Project Director and the staff. Table 4-2 depicts the recommendations relating to the Experience Site Analysis Subsystem in column one, the plan or proposed solution in column two, and the results in column three.

Table 4-2

Recommendations, Plans, and Results:
Experience Site Analysis Subsystem

Recommendation	Plan	Results
(1) The training of the site analysis team was judged to be successful. Therefore, efforts should be channeled into other areas of need.	(1) The training manual has been formalized so that anyone with proper instruction can do analysis.	(1) Training manual underwent final revision for printers and have been delivered.
(2) The use of Learning Guides would be increased if they were available. Therefore, it is recommended that Learning Guides be made available as soon as possible.	(2) A meeting with the Media Director should be held to identify sources of the problem.	(2) Procedures and priorities have been established for requesting work from the Media Department. Work has been proceeding to the Media Department on a regular basis.
(3) The Learning Guides should include examples of activities in order to facilitate the writing of Activity Sheets.	(3) The Standard Activity Resource Book should contain a combination of past activities and new activities written to bolster both concept areas and site experiences.	(3) Subject area specialists sorted, selected, and wrote Activity Sheets. Information has been gathered and completion date was set. Twenty percent were finished by June 19, 1974. Document delivered to printers.

C. Student Recruitment and Selection Subsystem

1. Description of Subsystem

The AEL/EBCE Program drew its students from a population of high school seniors representing one or more of the following categories: a wide range of academic ability levels; diverse socioeconomic backgrounds; diverse racial and cultural backgrounds; a wide range of academic achievement; and diverse career aspirations.

From this population, students were sought who A) were eligible for enrollment in the Kanawha County School System; B) were within one year (fall semester applicants) or one semester (spring semester applicants) of completing high school; C) had specific course requirements that could be fulfilled by the end of the academic year in which they entered the program; D) had volunteered to participate with parental consent; E) had expressed career interest compatible with program capability; F) did not participate in work activities which would conflict with the EBCE Program; G) did not present unresolvable transportation problems; H) revealed no major health or adjustment problems; I) had been enrolled in regular classes in the preceding school term; J) were not under suspension or threat of suspension by any school system; and K) did not have commitments (e.g., band, athletics) which would interfere with involvement in the EBCE Program.

For the 1973-74 academic year, procedures used to recruit students are outlined in the Student Recruitment and Selection Subsystem (Figure 4-D). The process began by obtaining permission and cooperation from the Kanawha County Schools to recruit. Dissemination

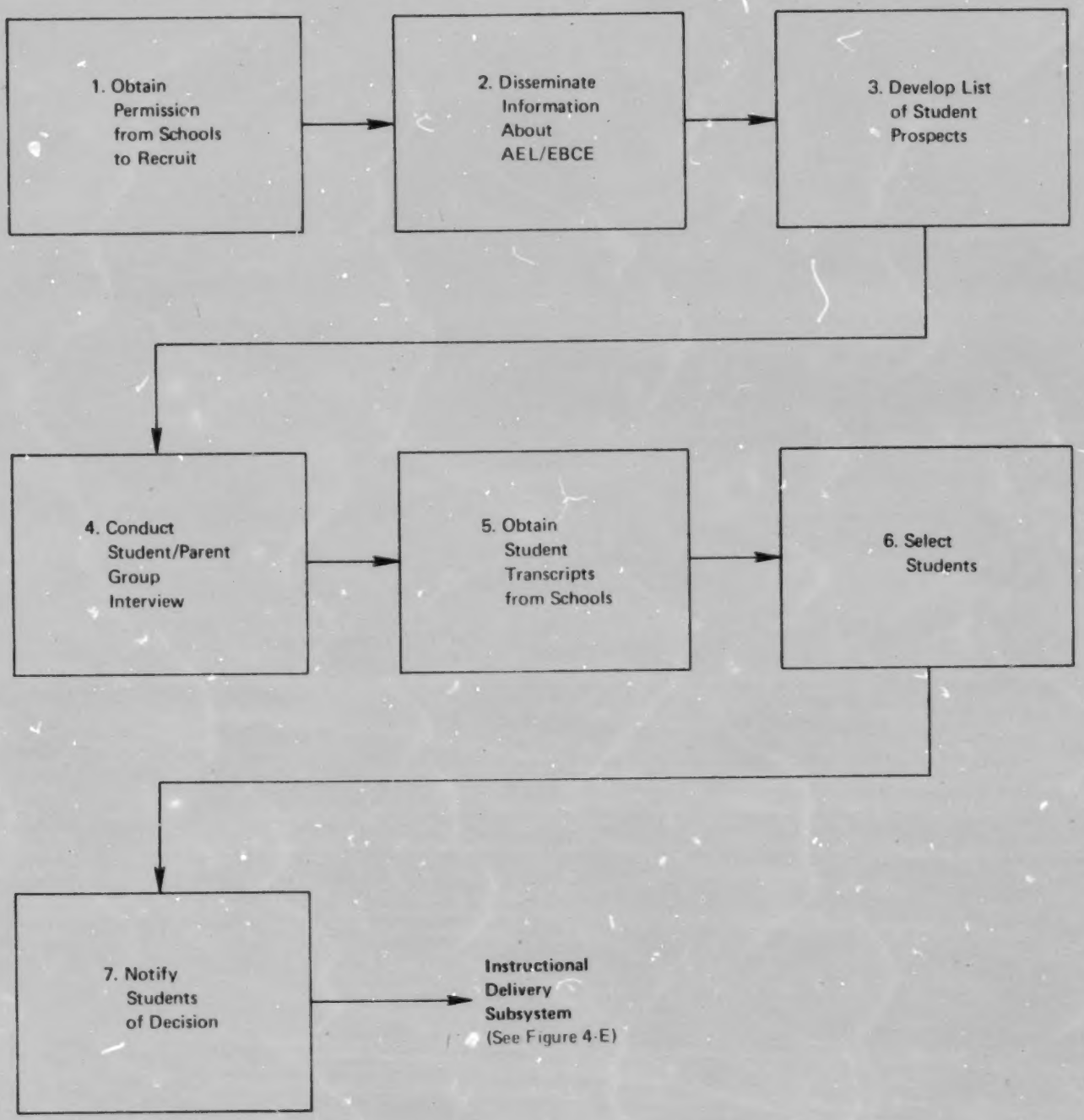
1. Obtain Permission from Schools to Recruit
2. Disseminate Information About AEL/EBCE
3. Develop List of Student Prospects
4. Conduct Student/Parent Group Interview
5. Obtain Student Transcripts from Schools
6. Select Students
7. Notify Students of Decision
Instructional Delivery Subsystem
(See Figure 4-E)

Figure 4-D

Student Recruitment and Selection Subsystem
January, 1974

of information to students about AEL/EBCE occurred next. During this year, school guidance counselors distributed a brochure describing EBCE to eligible students. Because this procedure proved inadequate, AEL conducted two mass mailings (to a total of approximately 3,500 students). Additionally, students were recruited through spot announcements and a talk show appearance on radio and by newspaper advertisements.

A list was then compiled of the names of students responding to any of the recruiting efforts. Arrangements were made for those students and their parents to attend a group interview with AEL/EBCE personnel. During the interview, students and parents were given a more detailed description of the Program, and expressions of their interests and needs were obtained.

For those students who continued to express an interest in the Program and whose parents consented to their participation, high school transcripts were obtained. On the basis of information from the group interviews and on the high school transcripts, EBCE staff decided which students were to be admitted. Students were notified of the decision both by telephone and by letter.*

2. Evaluation Results

The following is a summary of the conclusions presented in the Interim Evaluation Report. When that report was written, recommendations were generated from the evaluation results. Corresponding actions for each recommendation were proposed by task forces. These

* A detailed report is being prepared documenting the recruitment strategies used by AEL/EBCE Program.

solutions for each recommendation are reported here along with the results of the action that was taken.

a. Summary of Interim Evaluation Report on the Student Recruitment and Selection Subsystem

The Interim Evaluation Report for this subsystem dealt with the following: Success of three enrollment periods; Communication of AEL/EBCE to students; Learning coordinators' opinions of AEL/EBCE materials; Student selection criteria; Students' opinions of AEL/EBCE; and Target audience.

(1) Success of Three Enrollment Periods - The first and second recruitments were not successful. The required number of students was not recruited, and a poor response rate was observed. For the first recruitment, a pamphlet with a return requested was sent to high school students. The response rate was very low, due in part to an error in postage and the return form. If the student returned the pamphlet, it was addressed in such a way that it was returned to the student, not to EBCE. Potential student loss due to these errors cannot be determined. The third recruitment was apparently successful based on the number of responses and number of school visits. All recruitment efforts were seriously hampered because of late funding by N.I.E. The agreement with the Kanawha County School System was that AEL/EBCE would not recruit until the contract was finalized.

(2) Communication of AEL/EBCE to Students - Based on student responses to a questionnaire given during orientation,

students heard about the AEL/EBCE Program by a number of methods. Students cited several ways which they felt would be most effective in communicating the AEL/EBCE Program to the students. Additional modifications of the recruitment subsystem included a polished presentation, and a follow-up of all students expressing interest in the program. All the improvements suggested by students were addressed by the third recruitment subsystem.

(3) Learning Coordinators' Opinions of AEL/EBCE Materials - All learning coordinators viewed the publicity materials as "being very reflective" to "somewhat reflective" of the nature and purpose of AEL/EBCE. The learning coordinators stated several ways the publicity materials could be improved.

(4) Student Selection Criteria - The selection criteria, as viewed by selected members of the Design Unit, appeared to be useful. Criteria G, I, and J were reported not useful.

(5) Students' Opinions of AEL/EBCE - The students who responded to the orientation questionnaire indicated 14 reasons why they liked the AEL/EBCE Program. These reasons fall into the following five major categories: friendly people (staff and students), independence, site experience, one-to-one interaction, and scheduling.

(6) Target Audience - Whether or not the AEL/EBCE recruitment effort reached the appropriate target audience is questionable. The difficulty is in defining "target"

audience. Is the target group all seniors in the Kanawha County School System or all seniors who volunteered in Kanawha County?

b. Recommendations, Plans, and Program Action

This part includes the recommendations presented in the Interim Evaluation Report. The formative evaluation recommendations of the Interim Report highlighted areas of concern for both the Project Director and the staff.

Table 4-3 depicts the recommendations that relate to the Student Recruitment and Selection Subsystem in column one, the plan or proposed solution in column two, and the results in column three.

Table 4-3

Recommendations, Plans and Results:
Student Recruitment and Selection Subsystem

Recommendation	Plan	Results
(1) The third recruitment subsystem should be operationalized with modifications based on staff and student inputs. This is probably the one most significant factor in developing an adequate timeline for recruitment.	(1a) Recognized that first and second recruitments were unsuccessful. (1b) Developed a new system for recruitment which incorporated staff and students' suggestions.	(1a) Initiated student recruitment for FY 75 in March, 1974. (1b) Paper documenting recruiting for FY 75 to be written.
(2) The transportation problem should be re-examined.	(2a) Present recommendation to stabilization Management Team at their next meeting.	(2a) Funding cuts impacted the recommendation. A study has been done concerning travel reimbursements for outlying areas. (2b) No decision as yet.

D. Instructional Delivery Subsystem

1. Description of Subsystem

The Instructional Delivery Subsystem (Figure 4-E) is one of the four basic subsystems inherent to the AEL/EBCE Program. This subsystem employs the outputs of the other subsystems in order to deliver to the student an alternative form of education.

For the purpose of this report, the Instructional Delivery Subsystem is divided into two component subsystems: Orientation and Instruction. Orientation is designed to give the students an overview of EBCE. During the orientation process, staff obtains data on students' needs and interests. This information is used to complete the students' Program Profiles and Program Descriptors, which are the first two steps in the Instruction Subsystem.

The Instruction Subsystem is composed of eight major steps. Each step can be divided into sets of procedures, tasks, forms, and interactions.

Based on the information obtained on each student from both orientation and student recruitment and selection, the learning coordinator and the student complete the individual Program Profile and Program Descriptor. This information enables the learning coordinator to identify appropriate learning experiences for the student. These learning experiences may draw from either community and in-house resources or Learning Guides (representing experience sites) or both.

After appropriate learning experiences and the means of delivering these experiences have been identified, Activity Sheets are developed

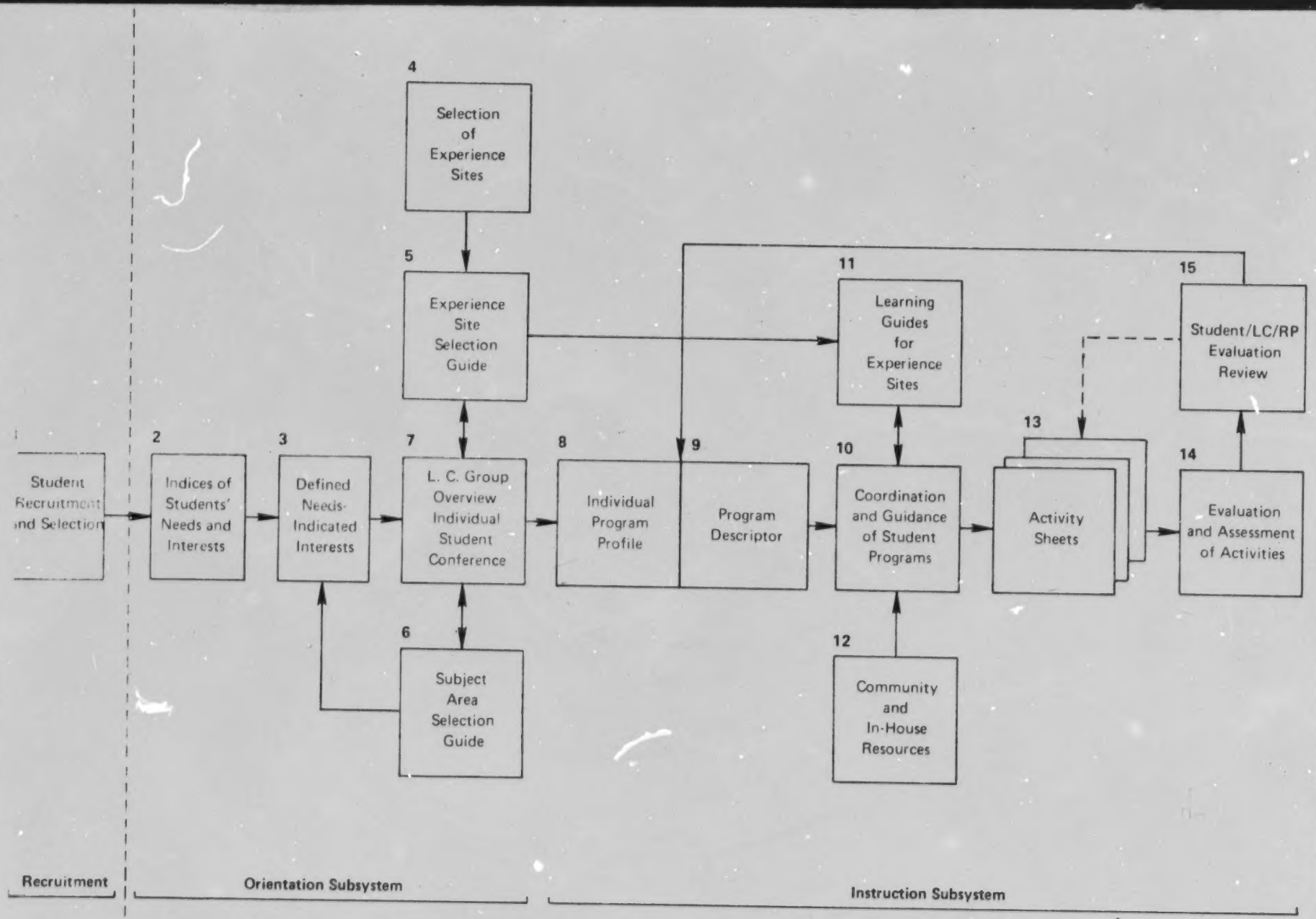

Figure 4-E

Instruction Delivery Subsystem
January, 1974

by the learning coordinator and the student in a one-to-one conference. The purpose of Activity Sheets is to take a student through a series of subactivities in order to satisfy his learning objective. In Step 14 the learning coordinator assesses the degree to which the student accomplished his objective. At this point the learning coordinator must decide if the student has completed enough work to pursue another area. If he has, recycling returns to the Program Descriptor. If the student needs more work in a particular area, then recycling returns to Activity Sheets.

2. Evaluation Results

The following is a summary of the conclusions presented in the Interim Evaluation Report. When that report was written, recommendations were generated from the evaluation results. Corresponding actions for each recommendation were proposed by task forces. These solutions for each recommendation are reported here along with the results of the action that was taken.

a. Summary of Interim Evaluation Report on the Instructional Delivery Subsystem

The Interim Evaluation Report for this subsystem dealt with the following: Program Profile completion, Program Descriptor completion, Attrition, Information needs, Orientation activities, Resource availability, Clarity of directions, Assigning credit value, Updating student programs, Orientation attrition, Training and role of learning coordinators, Materials, and Experience site placements.

(1) Program Profile Completion - Learning coordinators do not feel they are given enough information to adequately

complete the Program Profile. The types of information typically lacking were transcripts, diagnostic test results, interaction with students, and the students' aptitudes and abilities. In addition, the learning coordinators indicated more information about courses and course descriptions would be helpful.

(2) Program Descriptor Completion - Learning coordinators find the Program Profile helpful in filling out the Program Descriptor. If the appropriate materials were given to the learning coordinators when they fill out the Program Profile, no additional materials would be needed for the Program Descriptor. All respondents indicated that no change is needed in the format of the Program Descriptor. A majority of the learning coordinators indicated they had problems in developing learning experiences based on the Program Descriptors. The problems centered around students' interests and credits needed for graduation, lack of sufficient in-house resources, and lack of learning coordinators' expertise in specific areas. Learning coordinators indicated that considerations other than the Program Descriptor are involved in developing a learning experience for the student. Other considerations were student products, availability of in-house resources, students' interests, and the use of experience sites. All learning coordinators indicated problems existed since instructional materials were not readily available. The learning coordinators suggested a

number of changes, i.e. acquiring more in-house resources, better accessibility and multiple listing of in-house resources.

(3) Attrition - To date, one student has returned to his home high school during orientation. The AEL/EBCE staff indicated the student had difficulty in filling out forms and taking tests.

(4) Information Needs - Students, in responding to the question concerning information needed to complete the Program Descriptor, were very strong in stating that achievement test scores were not needed but that general ability information was. Students were undecided in regard to the need for transcripts. In addition, students indicated information concerning their interests, needs, and activities should be included on the Program Descriptor. Students who responded to a questionnaire indicated not enough information was given during orientation concerning experience site placements and requested information about what happens at the various sites. A majority of the students indicated they would not choose the same site again. However, all reasons given did not relate to the lack of information about the sites. Some students indicated that because of their placement, their interest areas changed. Students were positive in their reaction to AEL/EBCE staff willingness to develop new sites.

(5) Orientation Activities - Students were positive concerning the Career Education Workshop held during the orien-

tations in September and January. Students indicated the orientation events should be changed. Their concerns focused on the amount of free time, testing, and explanation of rules, regulations, and procedures which govern EBCE. Some of the learning coordinators indicated additional activities should be included in orientation. Their concerns centered on a better explanation of the learning coordinator's function, student responsibilities, and explanation of testing results. The learning coordinators did not indicate any orientation activities should be deleted.

(6) Resource Availability - A majority of the students had problems doing certain activities because resources were not available. Students' responses centered around the need for more books and the lack of specific sites located in Charleston that could be open to students during the hours of 8:30 a.m. to 3:30 p.m., such as sites relating to the arts.

(7) Clarity of Directions - Students usually understood the purpose of the activity assigned to them by their learning coordinator, and the directions for completing the activity were clear. A majority of students indicated that sometimes they understood the expected product. Students usually understood the criteria by which their products were judged.

(8) Assigning Credit Value - A majority of the learning coordinators were not aware of guidelines for deciding the point value of an activity. In most cases the learning

coordinators agreed that guidelines would be helpful.

(9) Updating Student Programs - Learning coordinators vary in the frequency of updating the Program Profiles from once a semester to once every month. Even though there was agreement among the learning coordinators concerning the information needed, learning coordinators varied from once every nine weeks to once a year in updating the Program Area Descriptors. Concerning the information needed, the learning coordinators indicated additional information is needed such as a valid and comprehensive set of concepts and objectives for students to pick from, transcripts, and a catalogue of courses from traditional schools.

(10) Orientation Attrition - Students who returned to their home high schools indicated that the major reasons were not due to the program but to extraneous reasons beyond the control of the program.

(11) Training and Role of Learning Coordinators - Learning coordinators were in relative agreement about the qualifications of learning coordinators. They were in complete agreement on training needed. The learning coordinators indicated the amount of time spent in training ranged from no hours to 80 hours with an average of 33.2 hours. The Design staff indicated qualifications of learning coordinators could include: college degree, not necessarily in education; general competency in all areas; and strong

social science background with minors in English and basic counseling. The Design staff indicated two types of previous experience were important; some secondary teaching (innovative or experimental school) and community experience. The Design staff was in partial agreement concerning the personal characteristics of learning coordinators. The learning coordinators' role is classified into ten task statements. These statements have been verified by the learning coordinators.

(12) Materials - Learning coordinators were in partial agreement that Program Area Descriptors, In-House Guide to Laboratory Materials and the Cross Reference Catalogue were very important sources of information. Learning coordinators did not reach a consensus on whether procedures and duties are adequately documented in the Operational Guidelines.

(13) Experience Site Placements - Students indicated a positive attitude toward their experience site placements. A majority of the students indicated that the resource person spent five percent to 100 percent of his time with them at the site. When 82 percent of the students responded to the questionnaire, they indicated that they liked the resource person very much. The students perceived themselves as employees, indicating they had some hands-on experiences at the site. Fifty-one percent of the students rated the

experience sites as excellent. Fifty-five percent rated the resource persons as excellent. Employers rated students who were placed at their sites above average in both personal qualities, and work and performance qualities.

b. Recommendations, Plans, and Program Action

This part includes the recommendations presented in the Interim Evaluation Report plus a description of the action taken by the staff since the Interim Report. The formative evaluation recommendations of the Interim Report highlighted areas of concern for both the Project Director and the staff.

Table 4-4 depicts the recommendations that relate to the Instructional Delivery Subsystem in column one, the plan or proposed solution in column two, and the results in column three.

Table 4-4

Recommendations, Plans, and Results:
Instructional Delivery Subsystem

Recommendation	Plan	Results
1) Learning coordinators should be rovided with appropriate materials for illing out the Program Profile.	(1) Explanation of sub-areas should be expanded with emphasis on the "use of profile" in August training for FY75. Personal data on students should be gathered.	(1) Sub-area definitions were expanded and training content was prepared. Sub-areas were defined and have been set for printing. Course area was assigned to Keysort cards. Course areas were then defined in terms of concepts.
2) Students should be provided addi-ional information about various experi-nce sites.	(2) Site analyses on all sites should be completed. New WTG display should be used.	(2) A contract was let for completing all site analyses. All sites were analyzed by mid-July, 1974. Contract was completed. Meeting on Worker Trait Group display was held on June 21, 1974.
(3) The staff of AEL/EBCE should re-xamine the events, timelines, and pur-oses of orientation activities.	(3) The FY74 orientation schedule should be examined and redefined in relation to material revision task force and formative date for appropriate adjustments.	(3) Orientation one week long. Certain presentations were reformated.
(4) Learning coordinators should be provided with the vehicles for developing appropriate learning experiences.	(4) CRC format should be revised. Minimum essential resources required to support new concepts and objectives should be identified. Resources necessary should be ordered. A resources bookcase for each learning coordinator to contain minimum essential resources should be developed. One set of "core materials" as sited in the CRC for each learning coordinator should be acquired. The core is to be determined, organized and ordered. Documents and forms that are to be used next fall are to be inventoried and reordered for a complete fall supply. Training needs to be expanded in relation to CRC and ESLG. More comprehensive training for use of inquiry model should be developed. More ESLG should be in	(4) Task force assignments were made. The best materials for selection of "core" as the CRC is revised were determined. A final review of resources was conducted to determine if the best sources were cited. A complete inventory was undertaken. The number of documents to be printed was determined. Inquiry model was simplified and "posters" were prepared for training. CRC was revised and training content was determined in relation to considerations of specific issues. Pre-service training content was restructured in relationship to new materials. Plans were made to prepare a more comprehensive staff training package.

Table 4-4
-Continued-

Recommendations, Plans, and Results:
Instructional Delivery Subsystem

Recommendation	Plan	Results
(5) Guidelines should be developed for assigning point value and credit.	(5) Design staff will examine previous guidelines for assigning credits and points. Draft discussion paper will be written for staff to critique.	(5) New guidelines were developed by design staff and critiqued by other staff members and incorporated into the Basic Procedures Manual.
(6) Communication between learning coordinators and students in the areas of (1) purpose of Activity Sheets, (2) products expected, and (3) understanding the evaluative criteria should be strengthened.	(6) Procedures/guidelines should be developed for establishing tentative points when an Activity Sheet is first developed. A three-step evaluation procedure should be developed. The Individual Program Management Form should be revised.	(6) Guidelines were developed to address point assignment when Activity Sheets are first developed, and a process was developed for evaluating the products.
(7) The timelines for updating the Program Profile and the Program Area Descriptor should be examined.	(7) Existing concepts and objectives statements should be reviewed. Statements should be revised as necessary: (a) Language (b) Addition of concepts and objectives (c) Deleting concepts and objectives	(7) More precise listing of concepts and objectives was accomplished. Greater agreement between learning coordinators as to the comprehensiveness and utility of the concepts and objectives was achieved. Concepts/objectives were revised, completed, and were camera ready to printer and have been delivered.
(8) A training packet for learning coordinators should be developed. It should include preservice, internship and in-service training.	(8) A tentative plan should be formulated with inputs from the Community Advisory Council.	(8) Conducted training for learning coordinators. Packet to be developed FY75 contract.
(9) The procedures and duties contained in the Operational Guidelines should be studied.	(9) Operational Guidelines should be merged with the counseling manual. Learning coordinators and administrators should check validity of the Operational Guidelines' entries. Format should be changed with more emphasis on examples. Also need to rewrite the Guidance Manual.	(9) The first rewrite of NRP was completed except for two procedures which need to be rewritten. Meeting was held to put manual in final form. Task was completed in July, 1974. Manual completed.

VII. Mini Studies

The purpose of Part VII is to report on the mini studies undertaken during the FY74 contract year. These studies were done to answer questions outlined in the Formative Evaluation Plan, to meet the Program Director's need for specific information, or to respond to an issue proposed by project staff members. There are seven studies covering various aspects of EBCE: Credit Translation, Student Evaluation of Experience Sites, Employer Evaluation of Students, Employer Interview, Parent Interview, Credits and Grades, and Attendance.

A. Mini Study #1: Credit Translation

The Credit Translation study analyzed Student Activity Sheets in terms of estimated points and actual points given by the learning coordinator for student products. This study also looked at the Activity Sheets in relation to the number of academic areas covered by each. The study was initiated during February, 1974 and resumed during April, 1974. During the initial investigation period, preliminary data were presented to Dr. Harold Henderson, Mr. Bill Anderson, Dr. John Cowan, Mr. Hal Nichols, and Dr. Jack Sanders.

1. Procedures

Data were obtained by learning coordinators from an examination of all first semester students' records. The data were recorded by subject area for each student, for each learning coordinator. The data were then analyzed to obtain the following information:

a. The estimated point range for each subject area across all students for each learning coordinator

b. The actual points given for each subject area across all students for each learning coordinator

c. Aggregate data for all students and all learning coordinators

d. The percentage of integrated Activity Sheets (those which cover more than one academic area) for each learning coordinator

In order to address the above, each student's folder had to be carefully examined. Of particular interest were the Activity Sheets completed by the students during the first semester. Estimated points and actual points earned were recorded along with the number of academic areas covered by the activity sheet completed by each student. Means and standard deviations were computed to describe items a, b, and c above. A tally was kept on the number of integrated Activity Sheets for each learning coordinator.

2. Findings

Table 4-1 displays the data related to point ranges, subject areas, actual points given, and percent of integrated Activity Sheets. All data are described by learning coordinator. The columns represent academic areas: NS= Natural Science; MS= Mathematics; SS= Social Studies; CE= Career Education; and E/C= English Communications. H is the estimated high point total on an Activity Sheet in

Table 4-1

Estimated Points, Actual Points,
and Integrated Activity Sheets
for Learning Coordinator

		NS			MS			SS			CE			E/C			% of Integrated Activity Sheets
		H	L	A	H	L	A	H	L	A	H	L	A	H	L	A	
I	$\bar{x}$	13.2	7.87	8.35	9.83	6.25	5.79	10.76	5.94	8.48	9.6	4.4	5.05	11.51	5.18	6.96	49%
	σ	4.34	2.99	5.46	4.72	3.61	5.05	4.48	3.11	8.61	.8	.49	4.02	6.32	2.70	5.37	
II	$\bar{x}$	15.76	8.76	14.21	13.69	8.25	11.19	13.47	7.71	13.64	10.27	5.17	10.18	11.42	6.59	10.61	63%
	σ	4.44	2.71	4.70	4.58	2.66	4.71	4.03	4.02	5.46	2.18	1.82	1.62	3.71	3.31	4.17	
II	$\bar{x}$	14.61	9.35	12.68	15.06	9.06	10.91	14.62	8.48	11.79	9.44	4.25	8.00	12.86	6.79	9.37	48%
	σ	11.34	7.84	11.83	7.57	6.18	6.69	5.15	4.23	7.31	2.87	2.49	3.29	8.02	5.82	8.27	
IV	$\bar{x}$	14.54	7.46	8.56	14.96	7.92	8.66	16.05	8.24	12.19	11.25	7.18	6.71	14.20	7.11	9.38	65%
	σ	4.92	3.08	6.26	8.87	4.60	5.36	9.72	5.85	14.22	3.61	4.37	3.89	11.86	6.22	12.23	
V	$\bar{x}$	7.8	4.0	7.5	15.2	6.2	13.8	12.9	7.9	11.1	11.5	5.8	11.3	13	6	10.8	87%
	σ	2.4	1.5	3.9	10.4	4.6	11.6	4.8	3.9	7.4	4.0	2.7	4.0	6.1	4.4	6.2	

H: estimated high point value
L: estimated low point value
A: actual points given

an academic area. The L is the estimated low point value for an activity in an academic area. The A is the actual point value awarded to a student in a particular academic area. The values of H, L, and A represent averages of all students for one learning coordinator in an academic area. The rows represent learning coordinators (I, II, III, IV, V). Means and standard deviations are given. The number in the last column indicates the percent of integrated Activity Sheets written by a learning coordinator.

Table 4-2 describes the N value associated with each analysis by learning coordinator. Column one represents learning coordinators, column two indicates the number of students for each learning coordinator, and column three is the average number of Activity Sheets per student.

Table 4-2

N Value By Learning Coordinator

learning coordinator	no. of students	average number of Activity Sheets/student 9/73 - 2/74
I	7	16
II	7	15
III	10	16
IV	7	20
V	8	21

The relationship of academic areas to actual points (average) by learning coordinators is illustrated in Figure 4-A.

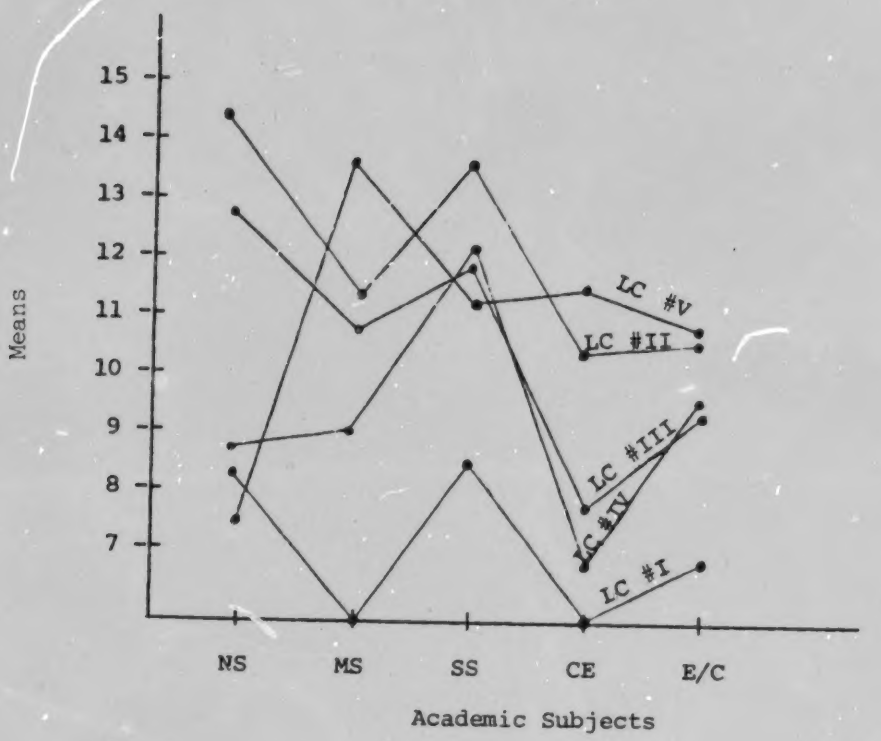

Figure 4-A
Actual Point (Means) by Academic Subject Area

Learning coordinator II, on an average, gave his/her students more points in the academic areas than the other coordinators. Learning coordinator I gave the least number of points. Learning coordinators I, II, III and IV follow essentially the same parallel pattern, learning coordinator V deviated the most.

3. Conclusion

Learning coordinators varied on assigning points to academic areas, even though the patterns for distributing points were about the same.

B. Mini Study #2: Student Evaluation of Experience Sites

This study examined the student views of experience sites in relation to the following questions: Was the site where a student was placed his/her first choice? What were the students' perceptions towards the experience site resource person? What were the students' perceptions toward the experience site?

1. Procedures

A questionnaire was developed and administered to the students after completion of each placement at each site. The questionnaire covered the student's views of the resource person he/she worked with and of the experience site itself.

2. Findings

The following data were gathered from 113 questionnaires returned:

Question 1. Was this one of the experience sites you had selected on the experience site selection form (this was filled out during orientation)?

Yes 63 No 46 No answer 4

Question 2. Estimate the percentage of time the experience site resource person spent with you while you were at the site.

0% 9 1%-25% 23 26%-50% 15 51%-75% 29 76%-100% 37

Question 3. My overall impression of the person I worked with mostly at the above experience site is: (check the most

appropriate space)

80	23	5	4	1
Liked very much	Liked some	No feeling	Disliked some	Disliked very much

Question 4. I would describe the experience site resource person as (place one check in the appropriate box):

a.

54	15	24	16	4
Very helpful	Much helpful	helpful	Little helpful	Not helpful

b.

48	29	28	5	3
Always Available	Frequently Available	Available	Seldom Available	Never Available

c.

34	38	35	3	1
Very warm	warm	?	Cold	Very cold

d.

46	20	26	16	5
Very interested in me	Much interested in me	Interested in me	Slightly interested in me	Not interested in me

e.

51	35	21	3	3
Very excited about his work	Somewhat excited about his work	?	Somewhat uninterested in his work	Did not like his work

Question 5. While at the experience site I was treated mostly like (choose one)

(a) a student 23 (b) an employee 68 (c) a guest 21

Question 6. I found that while I was at the experience site, I

(a) observed mostly 25

(b) participated a great deal 61

(c) Loafed mostly 3

(d) studied some 10

(e) observed and participated about equally 26

Question 7. If you were asked to grade the experience site, what letter grade would you assign? (circle the appropriate response)

A = excellent	54	D = poor	4
B = above average	34	F = very poor	1
C = average	19		

Question 8. If you were asked to grade the experience site resource person, what letter grade would you assign? (check the appropriate response)

A = excellent	51	D = poor	11
B = above average	32	F = very poor	1
C = average	17		

Question 9. Comments;

Positive 54 Negative 12 Neutral 8

The study revealed that students perceived that they were placed at the experience site of their choice (1st choice) 56 percent of the time as perceived by the student. There were no data collected to partial out second or third choice from the remaining 44 percent. Therefore any conclusion pertaining to the adequacy of placing students in their first, second, or third choice can't be made at this time.

The student's perceived the experience site resource person very positively on the following variables:

a. Overall impression - 91 percent of the students liked the experience site resource person.

b. Helpfulness - 82 percent of the students perceived the resource person as helpful to very helpful.

c. Availability - 93 percent of the students indicated the resource person was available to always available when they needed them.

d. Warmth - 62 percent of the students indicated the resource person was warm to very warm towards them. 30 percent of student did not express an opinion either way.

e. Interest - 81 percent of the student view the resource person as interested in them to very interested in them.

f. Excited about his work - 76 percent of the student perceived the resource person from somewhat excited to very excited about his work. 19 percent of the student did not respond either way.

g. Grade - 88 percent of the students rated the experience site resource person as Average to Excellent with the majority of the ratings as Excellent.

The students perceived the experience site as being very positive on the following variables:

a. Treatment of students - 60 percent of the students perceived they were treated as an employee, 20 percent said they were treated as a student and the remaining 20 percent as a guest.

b. Degree of participation - 70 percent of the students indicated they either participated a great deal or observed and participated about equally.

c. Grade - 95 percent of the students rated the experience site between average to excellent with 76 percent rating it as excellent.

3. Conclusion

The question relating to fit between site placement and students' choice can not be answered completely. It can be stated that better than half of the time students were placed in an experience site that was also their first choice.

Based on the data there is little doubt that the students view both the experience site and the resource person very positively.

C. Mini Study #3: Experience Site Evaluation of Students

This study examined the experience site perceptions of EBCE students in relation to two variables: Personal Qualities and Work and Performance.

1. Procedures

An instrument was identified that addressed both variables. This instrument was revised and reformated in order to be consistent with the other forms used in the Project. The instrument was then given to the resource person at the beginning of a student's placement. The resource person was asked to rate each student on a five point scale, excellent was a five (5) and poor was a one (1).

2. Findings

The data displayed in Table 4-3 were gathered from 129 student evaluation forms. On the average the resource person rated EBCE students between average and above average (3.490 to 3.944) in all sub areas on Personal Qualities and Work and Performance. The N value for each calculation (sub area mean) is indicated in Table 4-3.

3. Conclusion

This study reveals that the resource person rated EBCE students average or above average. Based on this data students were performing quite adequately and the resource person was satisfied.

Combining this data with the information received in Mini Study #2 it would appear that the relationship between students and experience sites is very strong and positive.

Table 4-3

Student Evaluation Form

	Excellent	Above Average	Average	Below Average	Poor	$\bar{X}$
PERSONAL QUALITIES						
Accepts and understands the needs, feelings and faults of others.....N=111	30	23	56	2	0	3.730
Accepts and fulfills responsibilities.N=120	28	42	42	8	0	3.750
Exercises good judgment.....N=117	18	38	56	4	1	3.581
Displays leadership ability.....N=104	17	33	43	6	5	3.490
Has a sense of humor.....N=122	22	39	58	3	0	3.656
Is accepted well by other employees...N=121	27	48	44	1	1	3.818
Is cheerful .....N=125	28	54	40	3	0	3.856
Is cooperative.....N=125	32	54	39	0	0	3.944
Is courteous.....N=123	32	46	42	2	1	3.862
Is creative .....N=106	17	28	58	3	0	3.557
Is dependable .....N=119	26	40	47	5	1	3.714
Is friendly .....N=123	29	53	39	2	0	3.886
Is honest and sincere .....N=115	32	44	36	2	1	3.904
Is industrious .....N=117	24	32	47	11	3	3.538
Is willing to accept suggestions.....N-121	28	41	50	2	0	3.785
Dresses acceptably .....N=127	29	37	57	1	3	3.693
WORK AND PERFORMANCE						
Conscientious in fulfilling assignment.N=105	28	35	40	2	0	3.848
Does work neatly .....N=109	23	33	49	2	0	3.651
Does work accurately .....N=110	24	40	46	0	0	3.800
Follows directions .....N=115	27	43	40	5	0	3.800
Does work independently .....N=109	28	34	42	3	2	3.761
Works well in groups .....N=100	24	33	40	2	1	3.770
Turns work in on time .....N=89	25	24	37	3	0	3.798
Comes prepared .....N=99	22	24	51	2	0	3.667
Listens and cooperates .....N=114	31	37	44	2	0	3.851
Asks appropriate questions .....N=118	32	32	45	8	1	3.729
Reports to site on time .....N=118	33	32	46	7	0	3.771
Keeps scheduled appointments .....N=100	27	23	45	3	2	3.700

D. Mini Study #4: Experience Site Interviews

In essence the concept of EBCE is to make the community the classroom. To accomplish this goal, EBCE staff must be constantly aware of problems within the community affecting students and must be ready to reevaluate the processes used in helping student reach their goals.

EBCE must ensure a good experience within this segment of the Program where the majority of the students' efforts are expended. Students and personnel at experience sites have at times been placed in awkward positions because EBCE has not made necessary preparations for each placement.

The purposes of this study were as follows: to permit an end-of-year evaluation, to permit FY75 program revisions, and to provide the project staff with necessary information.

1. Procedures

An instrument was developed (Appendix C) in order that data could be collected to answer the purposes of this study. Sixteen (16) experience sites were randomly selected from 100 cooperating experience sites of the FY74 school year. The contact person for each site was called and an appointment was requested for instrument administration. A standard procedure was followed during each interview to ensure similar exposure to the instrument and to gather the essential information for statistical purposes. At the beginning of each interview, the researcher reviewed the reasons for the study. An informal atmosphere was maintained with the contact person to allow him to talk freely. Information relating to the standard questions

and any additional comments the interviewee felt were important were recorded.

Most interviewees were receptive and offered suggestions for improving EBCE weaknesses. They also complimented EBCE strengths. Their participation derived from a desire to help the students in EBCE. They evaluated the worth of the EBCE Program and wanted their organization(s) to cooperate. They also seemed to realize the importance of students having practical experience in helping them to make valid career decisions.

2. Findings

Some experience sites requested that specific changes be made for their sites in FY75. One experience site felt there were some built-in problems because of limitations on the number of students that could be taken at one time due to the confidentiality of the work. This interviewee refused to write evaluations of individual students and would not fill out questionnaires mailed him from other divisions of EBCE.

The contact person from another site questioned using that site for some students with an obvious lack of interest. This person said that some lab coats issued were not returned. Alas, checking attendance was a problem due to the complex size of the organization and the consequent difficulty in locating students. A sign-in/sign-out sheet will be used in FY75 to alleviate this problem. This site requested that a week's notice be given when placing students as it takes that amount of time to secure the necessary name pins and lab coats.

A third experience site representative was upset for having to spend an entire week completing a questionnaire sent to him a few months ago from the evaluation unit. This interviewee felt very strongly that students should not come to their sites without understanding fully what is ahead, i.e. students' misconceptions of photography/camera work. The interviewee was also concerned that one learning coordinator called to arrange a placement and another learning coordinator delivered the student.

A fourth participant was concerned that the learning coordinator who called to make the placement did not know specific information about the student.

Another employer was concerned about a possible program breakdown the last eight weeks or more. Students were not bringing in Exploration Guides. Three students arrived at the same time, and they did not know what to do with them. In their small office there was not enough work for these students to do, which caused much wasted time. He commented that things appeared to be extremely disorganized during the latter weeks.

One other experience site was concerned that since the work at his site was so highly technical, no EBCE staff member could fully understand the operation. He suggested that after one or two weeks, the student should determine a project instead of being assigned a general activity. The interviewee also requested a short interview with each student before he/she is placed there for career experience.

3. Conclusions

The following recommendations are made for improving EBCE in FY 75:

a. Students should complete a specific class in the World of Work before going to any experience site. In addition, they should be trained on how to interact at each specific experience site. Even though this has been a policy during the last year, revision or improvement is needed as it has evidently not been effective.

b. Students should wear name tags all year to each of their experience sites.

c. All placements should be arranged one week in advance to give employers time to prepare and to give students time to find out more about the site. If this is done, they will be more likely to arrive interested and prepared to experience a new career.

d. When a placement is arranged, the contact persons should be given specific information about the student, e.g. what the student wants to learn, what he/she is interested in (for a career), etc. A form with this information could be mailed in advance or delivered to the experience site on the first day of the placement.

e. Written or verbal follow-up should be given to the employers after the student leaves, as they want to know if they benefitted the student, or whether they need to change the experiences to meet the students' needs.

f. Coordination of the different units of EBCE impacting an experience site should be carefully examined and handled.

E. Mini Study #5: Parent Interviews

The purposes of the parent interviews were to permit an end-of-year evaluation, to permit FY 75 program revision, and to provide the project staff with necessary information.

1. Procedures

Twenty parents, randomly selected, were interviewed from 88 parents associated with the Program. The interviews were conducted June 17 through June 21, by phone whenever possible.

A standard procedure was followed during each interview to ensure similar exposure to the instrument and to gather the essential information. An informal atmosphere was maintained with the parent to allow him to talk freely. Information relating to the standard questions was recorded along with any additional comments the interviewee felt were important.

Most interviewees were receptive and offered suggestions for improving EBCE weaknesses. They also complimented ERCE strengths. Their participation was derived from a sincere desire to help the students in EBCE.

2. Findings

Most of the parents were positive and spoke favorably about EBCE. All the parents felt they understood what EBCE was all about. They felt that the quality of instruction at EBCE was good to excellent. They thought that the program was important because it provided their children an opportunity to explore different careers. All felt EBCE had positive effects on their children. Most of the parents said they would

encourage their children to enroll in the program again. They found the program to be better than past school experiences.

Parents commented favorably about the program in several areas: opportunity to explore careers and jobs, the individualized instruction, and the chance for their children to learn about the outside world while becoming more responsible and self-reliant. A few parents disliked the transportation problems and the lack of supervision of basic subject matter. Most of the parents, however, disliked nothing about EBCE. The overall impression of the program included such descriptions as "fantastic," "very worthwhile," "wonderful," "helpful," "best thing that ever happened to my son," and "excellent."

Eleven of the parents had no suggestion for changes in EBCE. The remaining nine parents suggested such things as closer supervision of academic work, closer touch with home high school, and more feedback to parents. The majority of parents felt they had received enough information about their children's progress.

All the parents felt that EBCE had provided their children much more opportunity than regular school to learn about careers. Most felt that EBCE was responsible for their children's present career plans because they had been given much more opportunity to clarify career goals. As a result of participation in the Program, they had become more confident, responsible, and mature. They were more interested and curious about things. Almost all the parents felt there had been no negative changes in their children.

Parents said that EBCE had provided better opportunities for general learning and were for the most part satisfied with the occupational plans of their children.

The interviews revealed that students spoke frequently about EBCE at home, and their comments were mostly positive. The Program had been what parents expected it to be. They felt that they had been provided with enough information when they were initially contacted about the Program. The interviews revealed that parents had not had much contact with the staff. When asked to rate their relationship with the learning coordinators, some said they could not judge them because they had no relationship. Most of the parents had had no individual meetings with EBCE staff.

3. Conclusions

In conclusion, the parents had a very positive view of the Program. They had no regrets about their children's participation in EBCE. According to parents, its strong points far outweighed the weak ones.

F. Mini-study #6: Credits and Grades

The purpose of this study was to examine the distribution of grades awarded to students during FY 74.

1. Procedures

The data gathered were based on a memorandum detailing the grades and credits each student earned. The data were then analyzed in terms of first and second semesters for both grades and credits.

2. Findings

The first semester distribution of grades is shown in Table 4-4.

Table 4-4

Distribution of Grades First Semester

Grades	Freq.	Grades	Freq.	Grades	Freq.	Grades	Freq.
A+	1	B+	6	C+	10	D+	0
A	53	B	59	C	46	D	18
A-	8	B-	12	C-	15	D-	4
Total	62		77		71		22
Percent	27		33		31		9

Freq.= Frequency

As indicated by the percentage figures, the distribution of scores tends to be rectangular in nature. Since the computation of standard deviation would be meaningless, only the average grade is given. The average grade for first semester ranged between B and B-.

The total number of credits awarded by learning coordinators during the first semester was 114.25. The mean per student was 2.539 credits. Credits awarded ranged from 1.5 to 4.5. The distribution of credits is shown in Table 4-5.

Table 4-5

Distribution of Credits

Credits	Frequency	Percent
4.5	1	2
4.0	2	4
3.5	3	6
3.0	10	22
2.5	13	29
2.0	10	22
1.5	6	15
Totals	45	100

In Table 4-6 the second semester distribution of grades is shown.

Table 4-6

Distribution of Grades Second Semester

Grades	Freq.	Grades	Freq.	Grades	Freq.	Grades	Freq.	Grades	Freq.
A+	4	B+	10	C+	10	D+	0		
A	159	B	124	C	47	D	21	F	1
A-	11	B-	14	C-	16	D-	1		
Total	174		148		73		22		1
Percent	42		35		18		5		2

The grades awarded by learning coordinators were higher the second semester than the first semester. One reason for a shift in letter grades from first to second semester could be the influx of new students who possessed a higher grade point average in their home high schools than did the first semester students. The average grade for the second semester ranged between B and B+ which again is higher than first semester's.

The total number of credits awarded by the learning coordinators during the second semester was 215.75. The mean per student was 2.60 credits. The credits awarded ranged from 1.5 to 5.0.

The distribution of credits is displayed in Table 4-7.

Table 4-7

Distribution of Credits

Credits	Frequency	Percent
5.0	1	1
4.5	1	1
4.0	6	7
3.5	7	8
3.0	16	19
2.5	17	20
2.0	25	30
1.5	11	14
Total	84	100

A comparison of credits earned by students is shown in Figure 4-B. The dotted line represents the first semester students and the solid line represents the second semester students. In both semesters the average number of credits fell between 2.0 and 3.0.

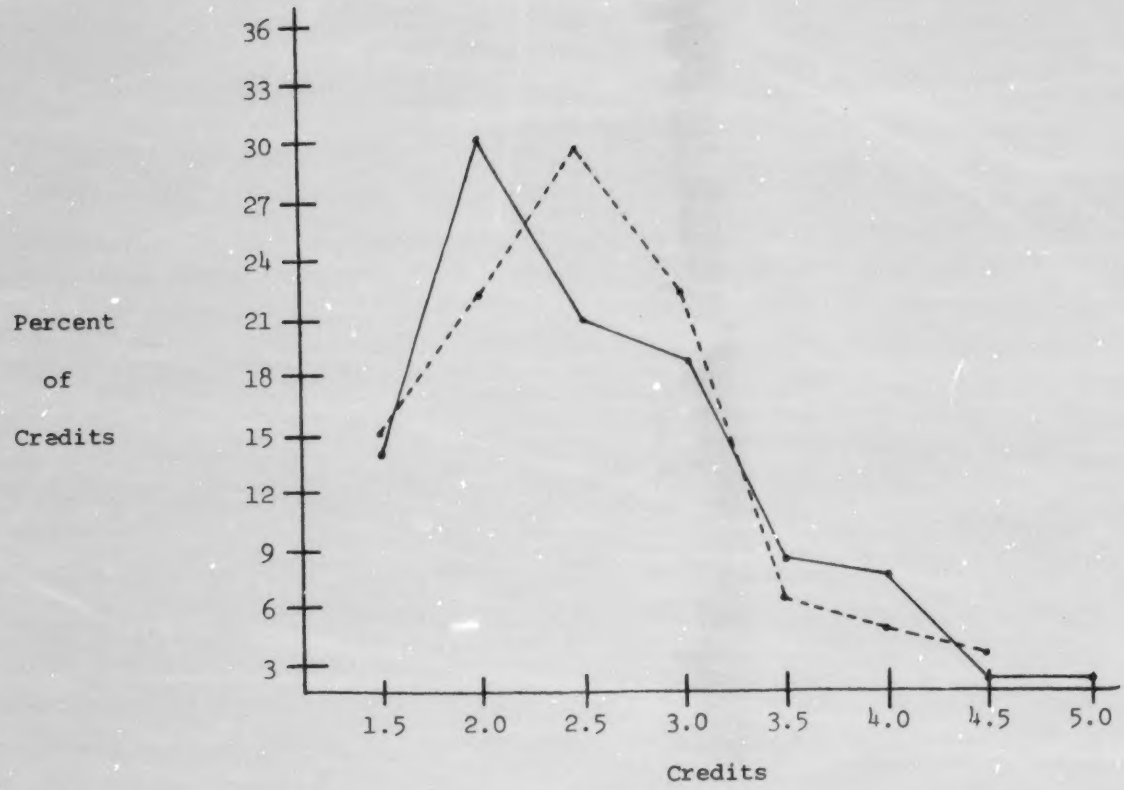

Figure 4-B

Credit Comparison

A comparison of first and second semester grades is shown in Figure 4-C. The dotted line represents the first semester students and the solid line represents the second semester students.

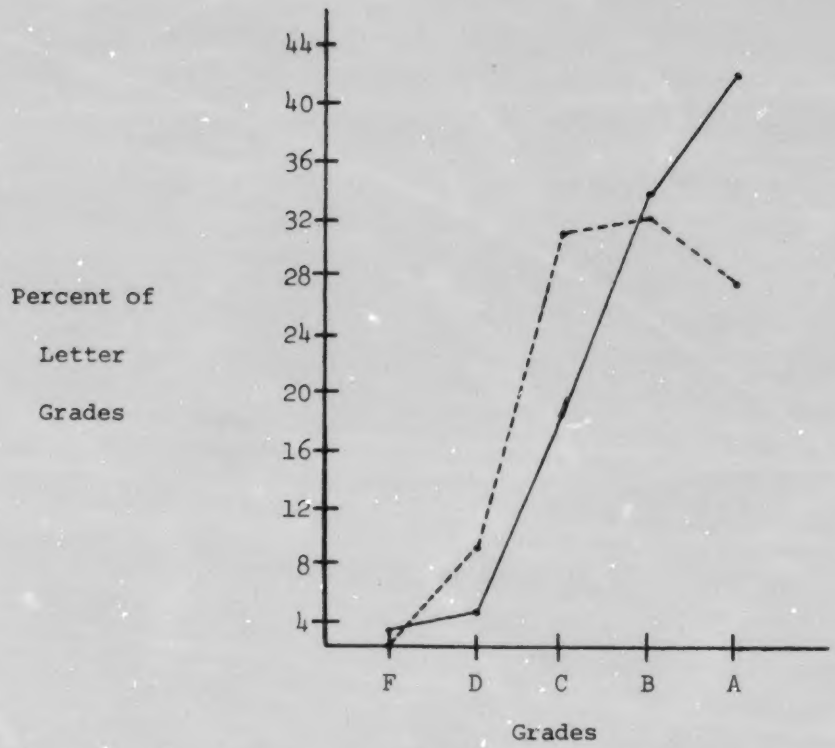

Figure 4-C

Grade Comparison

As you will note in Figure 4-C the grades for the first semester flatten out around 30 percent whereas the second semester grades continue to rise.

3. Conclusions

According to theories of individualized instruction, the grades earned by and credits awarded to EBCE students were not unusual. A student, if given the proper instruction and motivation, should emulate the pattern displayed by present EBCE students. The theory behind criterion referenced tests would apply to this type of situation -- a hundred percent of

the students should get 100 percent of the questions correct. The EBCE Program did not award 100 percent of the students A's, but the traditional normal curve was not applied either.

G. Mini Study #7: Attendance

The purpose of this study was to examine the attendance ratio of EBCE students versus traditional high school students. In addition, this study examined the attendance between EBCE students at experience sites versus EBCE students placed in-house.

1. Procedures

The design of this study required the following:

a. The study would last 6 days.

b. Students (25%) would be randomly selected each day.

c. Those students chosen would be checked as either in-house or at experience sites.

d. Two schools would be chosen each day for comparison.

Each day students were selected and their placements noted. If the placements involved an experience site, then the experience site was called to see if the student was present. If the placement was in-house, then the student's learning coordinator was called. Each day two schools were contacted and asked what percent of their seniors were absent that day. The data is displayed in Table 4-8. Experience Site is divided into total number of students assigned to that as a placement and the number of students absent (Ab). EBCE is divided into total number of students assigned to the EBCE site and the number of students absent. The column labeled total is divided into the ratio of absent to total N and present. The column marked KCSS stands for the Kanawha County School System.

Table 4-8

Attendance

	Experience Site		EBCE		Total		KCSS
Days	N	Ab	N	Ab	Ab/N	%	%
April 30, 1974	10	2	14	3	5/24	21	13
May 1, 1974	13	0	11	0	0/24	0	10
May 2, 1974	13	5	9	1	6/22	27	9
May 3, 1974	14	1	10	1	2/24	8	14
May 5, 1974	6	1	18	2	3/24	13	17
May 6, 1974	12	0	12	0	0/24	0	10
May 7, 1974	12	1	12	0	1/24	4	12
Total	80	10	86	7	17/166		
Percent		12 1/2		8		10	12

Note: EBCE 12th grade students were absent from their traditional high schools 11% of the time when they were in the 11th grade.

2. Findings

As can be seen from Table 4-8 EBCE students placed in-house had a better attendance rate than those placed at experience sites. EBCE students placed at experience sites had about the same percent of students absent as did the traditional schools. Overall EBCE students had better attendance than traditional high school students. EBCE students had a better attendance record than they did previously in the eleventh grade.

Further examination of data revealed the following:

a. EBCE absenteeism fluctuated much more than traditional high schools, but on an average was lower than traditional high schools.

b. EBCE students spend approximately the same amount of time at experience sites as they do in-house.

c. There is a need to revise present record keeping forms used to keep track of where students are placed (in-house or at experience sites). The evaluation staff had a difficult time using existing procedures.

3. Conclusions

The results of this study revealed that EBCE students do have a lower absence rate than traditional high school students during the same time period even though greater fluctuation occurred in EBCE.

Based on data from both the experience site rating of students and students rating of experience sites, the absentee question is not of concern. Experience sites did not criticize students because of attendance.

SECTION 5

Case History of Selected EBCE Students

To

June 30, 1974

I. Preface

The purpose of the case histories which follow is to describe the academic and career exploration experiences of a number of students who participated in the EBCE Program during FY 74. Nine cases were slected on a post hoc basis, representing approximately eleven percent of the student body as of May, 1974. All names used in this document are ficticious.

II. Methodology

To assure that students with a diversity of experiences would be included, the following selection factors were considered: sex and ability level of student, date of entry into the EBCE Program, and learning coordinator. The researchers realize that there are other equally important variables which could be considered (e.g., career interests of student). These three criteria were chosen because there was not time to isolate all the important variables and select a group of students which would be truly representative of the total student body, an extremely heterogeneous group which underwent a variety of academic and career exploration experiences. FY 75 plans are to select randomly a group of students at the beginning of the year. This method should control the extraneous factors and provide a representative group of EBCE students. The group will be followed closely throughout the year, enabling the development of case histories that are more detailed and accurate for the final report.

III. Case Histories

A. Case History #1 - Diana Merrill

Diana Merrill was one of 44 students who entered the Charleston EBCE Program in the fall of 1973, the second year of operation. Her parents

are well-educated and own their own home. Her father is employed as a maintenance planner for a major chemical company in the area.

1. Background

During her sophomore year, Diana became pregnant, left her high school, and enrolled in a home-bound school for unwed mothers. Following her pregnancy, Diana desired to attend a school that would help her meet relevant personal needs. Since she did not feel that her home high school could do this, she enrolled in a school located in another state. Before leaving, she discussed her experiences with a girlfriend, describing the frustrations she felt concerning both the experience she had recently undergone and the inadequacy of her high school training. During the discussion, Diana's friend described EBCE, which she was entering in the fall, and suggested that Diana might want to consider it when she became a senior. This was Diana's first information about EBCE.

When Diana returned from out-of-state, having successfully completed her junior year, she enrolled in summer school at a local high school. She believed that this was necessary to help her catch up with her classmates and to reorient her to high school. During the summer she became discontented with her courses, the classroom atmosphere, and the teaching methods used. She had experienced more academic freedom during her two previous years of schooling. Diana discussed her dissatisfaction with a classmate, who described a career education program she was planning to enter in the fall, the same program described to her previously. Diana began to make plans to enter EBCE.

When Diana entered the EBCE Program, she was quiet and soft-spoken but capable of conversing with adults. During orientation, Diana stated that her principal hobbies were arts and crafts and working with animals and people. Her three major goals were to go to work, to get married, and to continue her education at a college or university. She hoped that participation in EBCE would help her gain "knowledge of my true interests and capabilities and how to go about reaching them".

Diana expressed interest in exploring some or all of the following careers: art or art education, drafting, interior decoration, veterinarian, farmer, zoologist, midwife, social worker.

Diana's transcript revealed that she was a student with above average intelligence (Otis I.Q. of 120) whose school achievement had been mediocre except during the tenth grade. Her ITED scores reflected her low level of achievement. Her composite score was at the 14th percentile when compared with a national norm group of twelfth graders. Diana's highest score on any of the subtests was in Social Studies, on which she scored at the 27th percentile. Her lowest score was in Language Arts which was at the 10th percentile. These scores seemed to indicate that Diana possessed little ability and/or interest in written communications skills.

The Kuder Occupational Interest Survey, which was administered to Diana during orientation, showed her interests to be most similar to persons working in the health professions, architecture, or photography.

Analysis of the Career Maturity Inventory administered during orientation provided helpful information. Diana s attitudes and

feelings toward making a career choice and entering the world of work were far below average when compared to national norms of other high school seniors. On the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Diana's score were somewhat above those of other high school seniors, except on Knowing Yourself.

2. Participation in EBCE

During her first two weeks in EBCE and again at mid-year, Diana, with the rest of the student body, completed the following activities:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and experience site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with her selections

a. Academic Experience

On entering EBCE, Diana's academic requirements for graduation from her home high school were a credit in English and a credit in world cultures. To meet these requirements and the requirements for graduation from the EBCE, Diana enrolled in English/Communications 12, Career Awareness, Career Decision Making, and Social Studies.

While in EBCE, Diana's grade average improved. Her letter grade average for the year was a B, compared to the C average she received during the previous year. Both Diana and her learning coordinator felt that she had gained academically while in the Program. Diana's ITED test results from September, 1973, to April, 1974, indicated gains in Mathematics and Use of Sources. Diana is very enthusiastic about the academic work that she did at EBCE. She stated, "Before (coming to EBCE) I just did problems and stuff to get it done and I didn't think it was useful. Now I see a purpose to my work and see that I can apply what I've learned."

b. Site Placements

Diana's first site placement was in the pediatric ward of a local hospital where she experienced mixed emotions. The sight of seriously ill children depressed her, but by observing the interaction of nurses with patients, Diana also saw rewards. Diana realized she would need post-secondary education to be a nurse. She did not feel prepared for higher education and did not desire it at that time. She was also frustrated by the

primarily observational nature of her placement. Of this Diana stated, "For once, I wanted to do something. I wanted responsibility, not just to watch other people. I wanted to help someone myself.."

At the end of this placement, Diana changed to a specialty firm dealing with mountain arts and crafts where she could have hands on experiences. She had requested this site because of her artistic interests. It was a success. She learned how to make a patchwork quilt from scratch which she particularly enjoyed because she regarded knowing how to make her own things as a basic survival skill. Diana liked this experience site because she was able to get involved. "I really got into the work and liked the people," she said. In spite of this positive feeling, at the end of her scheduled placement Diana requested a change as she felt that she had exhausted the learning opportunities at that site. Nevertheless, she was grateful for the placement and pursues the craft skills learned there avocationally.

Diana's next placement was at a day care center for the children of low income working mothers. Diana experienced difficulties at this site. Because both the staff and the children at the center were primarily black, Diana felt that she experienced some resentment and prejudicial treatment because of her race and economic background. However, she did not regret the placement. "I gained real insight into how

black children are raised and what the problems of ghetto children are. I think I understand them much better now. This placement changed some of my attitudes."

When Diana left the day care center, she expressed an interest in returning to an arts and crafts placement. Her learning coordinator suggested the local art gallery because of the regional arts and crafts on display there. Diana agreed to the placement but expressed doubts about how successful it would be because she feared that a museum was "a dead place". It was this placement which led Diana to discover her career interest.

The art gallery was part of a larger organization which housed, among other things, a children's museum. At the time of her placement, only the art gallery was being used as an experience site. Diana liked her placement at the art gallery but took time to explore the Children's Museum and learn about the programs there. She requested EBCE staff members to develop the Children's Museum as a placement for her. Diana experienced unprecedented success at this placement. She became involved in all aspects of programs offered by the Children's Museum. She taught arts and crafts to small children and helped organize incoming and existing displays. Her World Culture credit was fulfilled through a program in the Museum, the "suitcase loan" program, which involved setting up and coordinating cultural displays from various countries. Diana's academic activities were coordinated with the work she was doing, and the resource person at the Museum made her coordinator of the "suitcase loan" program.

The Museum staff were supportive and delegated responsibility to her. In addition to her coordinating several programs at the Museum, Diana was also in charge of orienting EBCE students who requested placements there. Diana was asked to accompany Museum officials on a trip to Philadelphia to attend an educational seminar on museum activities and programs. While there, Diana also made field trips to museums in the Philadelphia area to learn how programs were initiated and how displays were set up. She described her experiences in a lengthy and detailed log for which she received partial credit in English/Communications skills.

Following her thirteen-week placement at the museum (the maximum time an EBCE student may remain at one site), Diana was placed in the media department of a private non-profit organization for eight days at her request to learn certain printing techniques. This site proved unsatisfactory to her and she was then placed in the graphics and printing department of a large manufacturing company for two weeks. Her last placement at a local radio station was highly satisfactory. She said "(Here) not only did I find the type of graphic work I was searching for, but I also (was) reassured (of) my interest and knowledge in photography and film processing."

c. Assessment

Diana was extremely happy about her experiences and very supportive of the EBCE Program. "When I came into EBCE, my parents and I didn't get along too well. I was lazy and unmotivated and didn't want any responsibilities. Now I'm

learning to accept responsibilities and proving to my parents that I can get along. We have a much better relationship than we ever did before--I can talk to them now as an adult." She also felt that "EBCE brought me from my dream world into the reality of existence in this world."

On the Career Maturity Inventory, Diana registered important gains on the Attitude Scale and on Parts 1 and 2 of the Competence Test, Knowing Yourself and Knowing About Jobs.

The resource person at the museum rated Diana as excellent or above average on nearly all personal qualities and work and performance traits.

3. Future Plans

After EBCE, Diana plans to attend the Portland Art Institute in Maine. In the future she hopes to work at a museum or similar place, perhaps as an art instructor. She plans to cite her numerous EBCE experiences and museum personnel recommendations as credentials.

Table 5-1

Experience Site Assignments
of Diana Merrill
Case #1

Period	Experience Site Assignment	Scheduled Days on Experience Site
9/4-9/14	Student Orientation at EBCE (no site assignment)	--
9/17-9/18	No experience site assignment	--
9/19-10/5	Hospital A (Pediatrics)	10
10/8-10/15	No experience site assignment	--
10/16-10/26	Mountain Arts and Crafts Firm	8
10/29-11/5	No experience site assignment	--
11/6-11/15	Art Gallery	6
11/16	No experience site assignment	--
11/19-12/7	Community Day Care Center	11
12/10-3/15	Children's Museum	51
3/18-3/28	Private Non-Profit Organization	8
4/1-4/11	Manufacturing Company (Graphics and Printing Dept.)	8
4/12	No experience site assignment	--
4/15-4/19	Spring Vacation	--
4/22-4/30	No experience site assignment	--
5/1-5/16	Radio Station	10
5/17-5/24	No experience site assignment	--

B. Case History #2 - Jane Donahue

Jane Donahue entered the EBCE Program in the fall of 1973, the second year of program operation. Her parents are high school graduates, and own their own home. Both her father and her mother work. Her father is a salesman-truck driver for a local dairy and her mother is employed in a service occupation.

1. Background

Jane was eighteen years old when she entered the EBCE Program. She has average intelligence and is somewhat shy. Her guidance counselor at the city high school which she had attended commented that she was "a very nice girl". During orientation, Jane stated that her principal hobbies were swimming, skating and music, and that her three major goals were to continue with her education, to go to work, and to buy a car.

Jane's reason for entering the EBCE Program was that she wanted to "change some things". She was interested in exploring all or some of the following careers: fashion merchandising, social or police work, dental hygienist, airline stewardess, business.

Jane's transcript revealed that she was an average student whose grades had dropped from ninth grade through eleventh grade. Lack of interest in school may have been a factor in this, as Jane's grades were better than average in two of her favorite subjects, science and music (band). Her high school grade average before entering EBCE seemed to be fairly consistent with her 11th grade aptitude and achievement test scores. Her Otis I.Q. (96) is close to the national average, and her composite grade level equivalent, as

measured by the STS Educational Development Series, was found to be 10.3, indicating that Jane's achievement was considerably below her actual grade level placement of 11.2.

Jane earned low scores on the Iowa Test of Educational Development, which was administered during September, 1973, at EBCE. Her composite score was at the 22nd percentile when compared with a national norm group of twelfth graders. Jane's highest score on any of the subtests occurred in Language Arts, on which she scored at the 42nd percentile when compared to the norm group. Her lowest score was in mathematics, which was at the 10th percentile. These scores seemed to indicate that Jane possessed little ability or interest in mathematics, but had much more strength in reading and writing skills.

The Kuder Occupational Interest Survey, which was administered to her during orientation, showed her interests to be most similar to persons working in health professions, service professions, or education.

Analysis of the Career Maturity Inventory administered during orientation provided helpful information: Jane's attitudes and feelings toward making a career choice and entering the world of work were somewhat below average when compared to national norms of other high school seniors; on the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Jane

did far better, scoring especially high on two parts "Knowing Yourself" and "What Should They Do".

2. Participation in EBCE

During her first two weeks in EBCE and again at midyear, Jane, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Make subject area and experience site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with her selections

a. Academic Experience

On entering EBCE, Jane's academic requirements were one credit in twelfth grade English and two credits in elective subjects. To meet these requirements, Jane enrolled in English Communications 12, Career Awareness, and Career Decision Making. In addition to these required courses, Jane decided to take three other electives--

Natural Science, Business Math, and Typing. She dropped these subjects at the end of the first nine weeks as the amount of work required to complete these three courses satisfactorily was too great.

While in EBCE, Jane's grades improved considerably. During the year she was in the program she maintained a B+ average. Jane's learning coordinator felt that she had shown improvement in both learning attitude and cognitive skills. On the other hand, Jane's mother felt that the academic program at EBCE was "not as good as regular school". Jane's ITED test results changed relatively little from September, 1973, to April, 1974.

b. Site Placement

Following orientation, Jane's first site placement was a department store because she desired to explore the career of fashion coordinator. This placement lasted 12 days and was terminated at Jane's request because she did not feel able "to see and find out the things I want to know." She had spent time in the sales department and in the stock room, but the fashion coordinator was too busy to answer most of her questions about this career.

Her next placement, at the clinical laboratory of a Charleston hospital, was far more satisfactory. This placement was arranged because it was closely related to Jane's measured interests. Jane found that she liked the kind of work a laboratory technician does, but as she stated in her Career Exploration

Guide, she "didn't like being with sick people or working long hours and holidays."

After spending several days doing in-house academic activities at the Program site, Jane was placed for eight days at the city police department. Here the resource person Jane observed was a detective working in the microfilm room. This site was somewhat unsatisfactory to Jane. She was bored with the work in the microfilm room because she was interested in being an undercover agent. She also felt that due to discrimination on the police force, she would have to fight to get such a job.

The third site at which Jane was placed was another department store. Jane was still hoping to find out more about a career in fashion. She spent eight days observing and working with sales clerks and the creator of window displays. Although her experience was partly satisfactory, she gave up the idea of exploring a career in fashion since in her opinion, "there's not much chance for a career in this field in West Virginia, because it's backward when it comes to fashion."

She was next placed at the hospital where she had been in October. This time, however, her resource person was the patient services coordinator, who is a social worker within the hospital. During her 12 days with this resource person, she had many opportunities to get hands on experience as well as to observe the work the patient services coordinator did. At the end of the placement, she decided that she enjoyed doing social work but

would not want to do it in a hospital setting because she found it depressing.

Jane's sixth site placement, which took place after the Christmas holidays and one week of in-house, was at a specialty firm manufacturing high fashion mountain arts and crafts. She observed the pattern cutter, since the fashion coordinator for this firm is based in New York City. She found that she would not want to enter the job of cutter because she "couldn't stand to sit still all day long." For this reason, the placement was a short one, eight days.

After this placement, Jane had one week in-house to allow her to catch up on her academic activities. She was then given the opportunity to observe an assistant at a local dentist's office. She stated that she would enjoy working as a dental assistant for one to two years, but she was not sure about making it a lifelong career due to lack of retirement benefits.

Since Jane was still interested in the idea of working in the health field, she asked to be placed in the hygienic lab of a government agency. She was able to explore many aspects of lab work there. She enjoyed her placement at this site very much. At the end of the placement, she decided that she still liked lab work but was not sure about what setting she liked.

Jane's learning coordinator arranged a placement for her at another government agency where she observed and aided social workers, secretaries, and managers. She enjoyed the placement,

which was one of her longest. She wrote the employer contact person there a warm and detailed thank you letter. She rejected a social work career because she "didn't want to have to listen to other people's problems" and found office work "too confining".

Jane and her learning coordinator with the help of all tests and other data available to them, decided on a placement at an elementary school where Jane worked with a teacher. This was her favorite site assignment and she spent 40 days over six weeks. During this period, she entered the investigation phase of career development. On leaving this site, Jane stated that she was seriously considering becoming a teacher, but because of the poor job market, she was considering going into special education, rather than another type of teaching.

c. Assessment

Because of the foundation of experiences and insights built up during her first six months in the Program, Jane moved steadily through career exploration on to career investigation. She seemed to learn as much from her negative experiences as from her positive ones, and as she explored careers, her career interests gradually narrowed.

Jane feels that the EBCE Program helped her tremendously in planning her career. She said, "It has given me a chance to actually see just what the career is really like. It has given me a chance to talk to the people who are really doing the work. Through my experiences, I have been able to narrow down to what

I like or what I know I like." She also believes that, as a result of participating in the Program, she "developed into a more independent person who is able to meet and talk to people much better." Her learning coordinator did not feel her social maturity had changed noticeably as a result of participation in the Program; however, he felt that she had developed more sense of self-confidence, humor, and self-assurance.

Jane's mother felt that as a whole, the EBCE Program had been a "worthwhile experience" for her daughter because it gave her a chance to see different kinds of jobs. As a result of the Program, Jane became a more responsible person and had selected a career.

On the Career Maturity Inventory, Jane showed gains on the Attitude Scale and on Part Two of the Competence Test, "Knowing About Jobs."

Most of Jane's employers (four of the five who returned the Student Evaluation Form) rated Jane as average or above average on almost all of the personal qualities and work and performance traits.

3. Future Plans

After EBCE, Jane plans to attend West Virginia State College and major in elementary education or special education. She also wants to work part-time.

Table 5-2

Experience Site Assignments
of Jane Donahue
Case #2

Period	Experience Site Assignment	Scheduled Days on Experience Site
9/4-9/14	Student Orientation at EBCE (no site assignment)	--
9/17-9/18	No experience site assignment	--
9/19-10/5	Department Store A	12
10/8-10/26	Hospital A (Clinical Laboratory)	8
11/5-11/6	No experience site assignment	--
11/7-11/20	City Police Department	8
11/21-11/23	No experience site assignment	--
11/26-12/6	Department Store B	8
12/7-12/10	No experience site assignment	--
12/11-12/20	Hospital A (Patient Services)	12
12/21	No experience site assignment	--
12/24-1/3	Christmas Holidays (no site assignment)	--
1/4-1/7	No experience site assignment	--
1/8-1/18	Arts and Crafts Speciality Shop	8
1/21-1/28	No experience site assignment	--
1/29-2/7	Dentist	8
2/8-2/9	No experience site assignment	--
2/12-2/21	Government Agency A (Hygienic Lab)	8
2/22-2/25	No experience site assignment	--
2/26-3/15	Government Agency B	12
3/18-3/29	No experience site assignment	--

Table 5-2 (cont'd)

Experience Site Assignments
of Jane Donahue
Case #2

4/1	No experience site assignment	--
4/2-4/12	Elementary School A	8
4/15-4/19	Spring Vacation	5
4/22	No experience site assignment	--
4/23-5/24	Elementary School A	32

C. Case History #3 - Mary Ellis

Mary Ellis entered EBCE in January, 1974. Her parents are both college graduates and own a home in a wealthly neighborhood. Her father is a manager/administrator for a local manufacturing company.

1. Background

When Mary came into EBCE, her father said "Mary is a sensitive, lazy impressionable child, who in spite of an excellent mind and unusual talent, is noncompetitive. Until her senior year, she was a classic underachiever. Recently she has exhibited at least the beginning of some maturity and has begun to exercise judgment which in most cases has proved to be sound. She feels that she has decided what she wants to do with her life, become an elementary or special education teacher, and may indeed have done so. However, I doubt that she has."

Mary stated that, after completing high school, she wanted to go to a college or university, enter some skill training program or go to work.

Mary's high school transcript indicated that she was an average student whose grades had fluctuated very little during her high school years. That her ability was probably a good deal higher than her achievement was shown by her eleventh grade College Board Admissions Test scores; she ranked at the 91st percentile on the verbal portion of the examination and at the 97th percentile on the math portion. Her composite grade level equivalent as measured by the STS Educational Development Series was 12.7, which meant that her achievement was considerably above her actual grade placement (11.2 at the time of test administration).

Mary earned high scores on the Iowa Test of Educational Development, which was administered to her during January, 1974, at the EBCE Program site. Her composite score was at the 81st percentile when compared with a national norm group of twelfth graders, and she showed special strength on the Reading (91st percentile) and Social Studies (93rd percentile) subtests.

The Kuder Occupational Interest Survey, which was administered to Mary during orientation, showed that her interests were highly similar to those of social workers, religious education directors, nurses, deans of women, physical therapists, clinical psychologists, and ministers--all people-oriented helping professions. This is a highly important indicator, especially in light of Mary's statement that she was interested in people themselves and wanted to help them in any way she could if they would work with her toward a mutual goal.

Analysis of the Career Maturity Inventory administered to Mary during orientation provided helpful information: Mary's attitudes and feelings toward making a career choice and entering the world of work were about average when compared with national norms of other high school seniors; on the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Mary did far better, scoring about average on "Knowing Yourself" and far above average on "Knowing About Jobs", "Choosing a Job", "Looking Ahead", and "Goal Selection".

2. Participation in EBCE

During her first two weeks in EBCE, Mary, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and experience site selections based on expressed and measured needs and interests and, with the help of learning coordinators, filled out the necessary forms associated with her selections

a. Academic Experience

On entering EBCE, Mary required 1/2 credit in English 12 to meet graduation requirements. To graduate from EBCE, she also needed credits in Career Awareness and Career Decision Making. In addition to these required subjects, Mary decided to take Social Studies, specializing in Social Psychology and Child Rearing.

After joining EBCE, Mary's grades improved and she earned a B+ average for the semester that she was in the Program. Her learning coordinator felt that she had shown some improvement in learning

attitude and cognitive skills during the time she was in the Program. On the other hand, Mary's parents felt "she didn't work very hard with subject matter".

b. Site Placements

Mary's first experience site placement was at an elementary school beginning on February 6. This placement lasted 12 days while Mary observed the job of teacher. At the conclusion of this period, Mary was no longer sure she wanted to become an elementary school teacher because she did not like the pressures involved in this sort of teaching job and preferred working with people belonging to a variety of different age groups rather than just children.

Next, Mary was placed at a local hospital with a physical therapist. Mary enjoyed this placement very much because it gave her the opportunity to help people of all ages. She remained at this site for 16 days. Following this placement, she went to another hospital to explore a nursing career for a period of 19 days. At the end of this period Mary decided that she would not like to become a nurse because she "didn't like the idea of doing the same thing every day."

c. Assessment

Mary's learning coordinator feels that she showed great improvement in career maturity as a result of participating in EBCE. Her mother felt that EBCE gave Mary the chance to choose a career (physical therapy) which she had not considered before going into

the Program because she had not had the opportunity to explore it. Mary believes that "this Program gives the student a chance to relate to adults as equals. In EBCE the student can view a career before entering it in order to find out what really goes on."

On the Career Maturity Inventory, Mary showed important gains in her attitude towards making a career choice and entering the world of work, from the 52nd percentile to the 96th percentile when compared with a norm group in her own grade. She also registered improvements on the part of the Competence Test entitled, "Knowing Yourself". Initially, she had scored at the 52nd percentile on this part of the Career Maturity Inventory; after participating in the EBCE Program, she earned a score which was at the 88th percentile when compared with a norm group of high school seniors.

The resource person at the elementary school where Mary was placed said that Mary's duties were "helping to get things ready for activities and helping students who needed help and working with small groups. Mary did an excellent job working with boys and girls, and we enjoyed having her."

3. Future Plans

Mary plans to attend West Virginia University and major in physical therapy. She is presently working for the Kanawha County Public Library. It is interesting to note that when she entered the Program she stated that she wished to go to college and become an elementary school teacher --a goal not far removed from her present one.

Table 5-3

Experience Site Assignments
of Mary Ellis
Case #3

Period	Experience Site Assignment	Scheduled Days on Experience Site
1/30-2/5	Student Orientation at EBCE (no site assignment)	--
2/6-3/1	Elementary School	12
3/4-3/8	No experience site assignment	--
3/11-4/4	Hospital A (Physical Therapy)	16
4/5-4/8	No experience site assignment	--
4/9-5/17	Hospital B (Nursing)	19
5/20-5/24	No experience site assignment	--

D. Case History #4 - Tony Schwartz

Tony Schwartz entered the EBCE Program at the start of the spring semester of the 1973-1974 school year. His parents are high school graduates. The family are homeowners in a respectable middle income neighborhood. Tony's father is employed as an agent for a large insurance company.

1. Background

When he entered EBCE, Tony appeared to be an articulate, sensitive young man with little idea about which career he wanted to pursue. However, during orientation Tony stated that he would prefer to work in a career involving the following kinds of work activities: activities which bring personal satisfaction from working on or producing things; activities of a scientific or technical nature; activities of an unusual, indefinite nature which require creative imagination; activities which involve direct personal contact to help people or deal with them for other purposes; activities dealing with things and objects; activities involving the communication of ideas.

These activities were related to the following Career Clusters or Worker Trait Groups: (1) medical, veterinary, and related services; (2) surgery; and (3) guidance and counseling.

Tony's transcript showed that he had been an excellent student since elementary school. His high grade average was consistent with the excellent scores which he earned on aptitude and achievement tests. For example, in the sixth grade his I.Q. score on the Otis-Lennon Mental Ability Test was 128, his composite grade score on the STS

Educational Development Test, administered during the eleventh grade, was 12.6, and his eleventh grade composite achievement score on the American College Testing Program Achievement Tests was at the 89th percentile when compared with a national norm group of college-bound students.

Tony also earned high scores on the Iowa Tests of Educational Development administered during January, 1974, at the EBCE Program site. His composite score was at the 81st percentile when compared with a national norm group of twelfth graders. Tony's highest scores on ITED subtests occurred in Use of Sources (96th percentile) and in Science (90th percentile); however, all of his other subtest scores were also high enough to suggest that Tony possessed the necessary aptitude to prepare to enter almost any career in which he was interested.

The Kuder Occupational Interest Survey which was administered to him during orientation showed his interests to be most similar to persons working in the field of engineering, forestry, architecture, photography, and computer programming.

Analysis of the Career Maturity Inventory administered during orientation provided helpful information: Tony's attitudes and feelings toward making a career choice and entering the world of work were considerably above average when compared with national norms of other high school seniors; on the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Tony performed almost as well, scoring especially high on three parts, "Knowing About Jobs"; "Choosing a Job"; and "What Should They Do;' and rather low on the part entitled, "Knowing Yourself."

2. EBCE Participation

During his first two weeks in EBCE, Tony, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and experience site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with his selection.

a. Academic Experience

On entering EBCE Tony needed 1/2 credit in English. To graduate from EBCE, Tony also needed credits in Career Awareness and Career Decision Making. In addition to these required courses, Tony also decided to take as electives Social Studies and Science, specializing in physics, which he had been taking at his home high school. He also did

independent study in trigonometry and typing, receiving no credit toward graduation for work done in these areas.

While in EBCE Tony's grades were excellent as they had been at his home high school. For example, Tony's learning coordinator said of his work in English, "Everything turned in has been of excellent quality, beautifully composed, and neatly typed--what more can I say except Tony has practically monitored his own program." Tony's learning coordinator believed that he showed great improvement in learning attitude and some improvement in cognitive skills during the period he spent in the EBCE Program. His parents felt he "got more out of instruction at EBCE than he would have in school" due to being able to choose his own program and receiving individualized attention.

b. Site Placements

After Tony completed orientation, an experience site placement related to his expressed interests was arranged for him at a local oral surgeon's office. This placement lasted ten days. Tony said of the placement, "I was very impressed with this experience site. From what I've seen, I feel I would be very happy working in this type of occupation; however, I am not yet deciding anything. The oral surgeons were very helpful in showing me exactly what was going on and answering many of my questions. Before going into this office, I had only a vague idea of

what was actually involved in working with any type of dental occupation." As a result of this placement, Tony stated that he was sure that he wanted to enter the field of dentistry and desired to be placed with a dentist" as soon as possible."

Next, at Tony's desire a special placement was arranged for him with a local dentist. Tony spent eight days at this experience site. He said of the placement, "I liked this job site very much. I found there was much lab work involved; while that surprised me, I found it something I would love to do. I feel I would be very happy as a dentist and want very much to achieve this goal."

Although Tony wanted another placement at an experience site in the dental care field, his learning coordinator believed that he should explore at least one career more closely in line with his measured interests. He convinced Tony that it would be in his best interest to try out such a placement. Tony was placed with an architect for eight days. He enjoyed the placement very much and felt that he would be happy in a job of this nature but felt that the courses he would have to take in order to pass the test of the West Virginia Board of Architects would be uninteresting to him.

After spring vacation, at Tony's request, another special placement was arranged for him at a dental

laboratory. Tony remained at this site for four days. During this period he found that although the work was interesting because it was new to him, he might well grow bored in time because it entailed doing the same thing over and over again.

Tony's final experience site placement was at a local elementary school. Although no data are available on the reason for this placement, it is hypothesized that it took place in order to give him the opportunity to explore a career in which he had the opportunity to interact with small children in a helping capacity.

c. Assessment

Tony was very satisfied with all of his site placements and thought the career education program was "fantastic". His parents were equally enthusiastic about the program. They described the EBCE Program as "the best thing that has ever happened to high school students" because it helps students decide what they want to do. Tony's learning coordinator felt he had shown great improvement in career maturity and social maturity during the time he was in the Program.

On the Career Maturity Inventory Tony registered important gains on the first part of the Competence Test, which is entitled, "Knowing Yourself." He had scored at the 33rd percentile compared to a norm group of seniors

on entering the EBCE Program in January, 1974, but by April he stood at the 66th percentile when compared with the same norm group.

The resource person at Tony's first experience site, a local oral surgeon, rated Tony as excellent on all personal qualities and in work and performance and stated, "Tony was very cooperative, and it was a pleasure to have him with us."

3. Future Plans

Tony plans to enter West Virginia University this fall (1974). He has clarified his career goals as a result of participating in the EBCE Program and plans to take courses leading to a career in dentistry.

Table 5-4

Experience Site Assignments
of Tony Schwartz
Case #4

Period	Experience Site Assignment	Scheduled Days on Experience Site
1/28-2/5	Orientation at EBCE (no site assignment)	--
2/6-2/25	Oral Surgeons	10
2/26-3/1	No experience site assignment	--
3/4-3/14	Dentist	8
3/15-3/22	No experience site assignment	--
3/25-4/4	Architect	8
4/8-4/12	No experience site assignment	--
4/15-4/19	Spring vacation	--
4/22-4/26	No experience site assignment	--
4/29-5/2	Dental Laboratory	4
5/3-5/13	No experience site assignment	--
5/14-5/17	Elementary School	4
5/20-5/24	No experience site assignment	--

E. Case History #5 - Robert Smith

Robert Smith was a member of the gorup of 44 students who entered the EBCE Program in September, 1973. His parents are both college graduates who are gainfully employed. Robert's father is a professional, and his mother works in a service occupation.

1. Background

Robert was quiet and shy at the time he entered EBCE. This may have been partially due to a bad case of acne and a somewhat troubled home situation.

Robert stated that three of his reasons for entering the Charleston EBCE Program were to obtain more information on careers, to prepare for a job, and to meet people in the business world. His three primary personal goals were to continue with his education, to go into military service, or to leave home. His principal values were humanistic, creative, and social. He expressed interest in exploring several careers that would involve working with people in a helping relationship (e.g., police work, elementary education, and x-ray technology) and also stated that he would be interested in exploring the careers of photography and commercial art.

A transcript showed that at the start of his junior year when he entered EBCE Robert was an average student whose grades had dropped sharply during his last semester. Robert mentioned that one of the most important reasons leading to his decision to join the EBCE Program was boredom with school. This is supported by the fact that Robert's grade average prior to the

last semester of his sophomore year (B-) was fairly consistent with his achievement test scores. At grade 9.2, his composite grade level equivalent as measured by the STS Educational Development Test Series, was 8.9.

The Iowa Tests of Educational Development, administered during September, 1973, at EBCE, indicated that Robert's scholastic achievement was low as compared to a national norm group of eleventh graders. His composite score was at the 22nd percentile. He registered his highest scores on the Science and Reading subtests of the ITED, where he scored at the 44th and the 35th percentile, respectively. His lowest score was in Language Arts, where he scored at the 14th percentile. These scores suggest that Robert possessed little ability or interest in writing standard English, but possessed a good deal more strength in reading and science.

The Kuder Occupational Interest Survey, which was administered to Robert during orientation, showed his interests to be most similar to those working in certain health professions (i.e., x-ray technician, physical therapist, osteopath, and pharmaceutical salesman), photography, TV repair, and computer programming. His interests were also similar to male college students majoring in elementary education, mathematics, psychology, and science as enrolled in pre-medical/pharmaceutical/dental programs.

Analysis of the Career Maturity Inventory administered during orientation provided helpful information: Robert's attitudes

and feelings toward making a career choice and entering the world of work were below average when compared with national norms of other high school juniors; on the Competence Test of the Career Maturity Inventory which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Robert's scores were below average on "Knowing Yourself" (9th percentile), and about average on the other three parts--"Choosing a Job", "Looking Ahead", and "What Should They Do".

2. EBCE Participation

During his first two weeks in EBCE, Roberts, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and experience site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with his selections.

a. Academic Experience

When he joined the EBCE, Robert needed English 12 and four elective courses in order to graduate from his home high school. In order to meet these requirements, he enrolled in English/communications, social studies, typing, career awareness, and career decision making. At the start of the second semester, Robert added natural science and mathematics to these courses.

Robert's grades for the first semester were similar to those he had earned in ninth and tenth grades; however, during his second semester in EBCE, Robert's grades showed marked improvement although he was carrying a heavier course load. With the exception of one mark, his grades were all As and Bs. In addition, Robert's learning coordinator felt that he had shown great improvement in learning attitude and some improvement in cognitive skills during the period he was in the EBCE Program. Robert's parents thought that he worker harder, staying up late to read and study. They felt that the program was a real "shot in the arm" for Robert and believed that he might not have finished school without it.

Robert's ITED test results changed relatively little from September, 1973, to April, 1974, except in two subject areas, Reading and Science. In both of these areas, Robert registered large gains.

b. Site Placements

After orientation, a site placement was arranged for Robert at the city police department. Robert remained at

this site nine days. While there, he kept a log of his resource person's duties as a communications and social studies activity. He said of a policeman's job, "I like the job because it is very interesting, and a lot of people look up to you. A police officer has a job to do for the city at whatever cost to himself. A lot of people look at a police officer as the man who will arrest you if you do anything and forget that policemen are people too and have problems like anyone else. People do not like to be told something is wrong even if they know it is, but as long as you have people, you'll have police."

Robert's next placement was in the photographic production department of a local radio station. Robert was very satisfied with his experiences at this site and remained for 24 days. While there he completed a learning activity on film processing. At the end of the placement, Robert stated that he thought that photography was very interesting work because "You get to meet many different people and see many different things. Also, you have the satisfaction of having people comment on your work."

At the end of this placement, Robert indicated that he wanted to explore yet another career. With his agreement and input, a placement was arranged for him at the local air national guard base. Robert was placed for nine days with a noncommissioned officer in charge of aircraft maintenance. No data are available concerning what Robert

did during this period, but this placement may have influenced his decision to enter another branch of the service following graduation.

Robert's fourth experience site placement took place after a three-week period filled by EBCE-based academic activities and Christmas vacation. This site placement was arranged at Robert's own desire and gave him the opportunity to explore yet another career--elementary school teacher. He greatly enjoyed his experiences at this site because of his love for young children; therefore, he remained there for a six week period and completed a Career Investigation Guide there.

Robert's final experience site placement was at a local children's museum. While there, he did much site related academic work. He did an excellent illustrated research paper on the snakes of West Virginia. He also researched the construction and use of marionettes and puppets, constructed a puppet, and wrote a script for a puppet show in which he acted together with other EBCE students. Robert remained at this site for a 13 week period of career exploration and investigation and often mentioned that it was his favorite experience site placement. According to Robert, this was a site with something for everyone, where anyone could find something to "turn him on".

c. Assessment

As a result of his site placements Robert feels he has clarified his career goals somewhat. Robert became interested in radio and hopes to get training in this field in the services.

Robert's parents were very satisfied with the sites at which their son was placed and believed he enjoyed every placement. Robert's learning coordinator believed that he had shown some improvement in career maturity and great improvement in interpersonal skills during the time he was in the EBCE Program.

On the Career Maturity Inventory, Robert showed large gains on the attitude scale. On two parts of the Competence Test, "Knowing About Jobs" and "Choosing a Job", he registered large losses. Other differences were small.

The resource person at the elementary school where Robert was placed rated him as excellent or above average in almost all personal qualities and work and performance traits. Teachers at the site described him as an "easygoing person" who is "very responsible" and "works well with little children".

3. Future Plans

After EBCE, Robert plans to be a radio operator in the coast guard.

Table 5-5

Experience Site Assignments
of Robert Smith
Case #5

Period	Experience Site Assignment	Scheduled Days on Experience Site
9/4-9/14	Student Orientation at EBCE (no site assignment	--
9/17-9/18	No experience site assignment	--
9/19-10/5	City Police Department	9
10/8-11/16	Radio Station	24
11/19-11/25	No experience site assignment	--
11/26-12/6	Air National Guard	9
12/10-12/21	No experience site assignment	--
12/22-1/1	Christmas Vacation	--
1/2-2/15	Elementary School	--
2/18-5/24	Children's Museum	56

F. Case History #6 - Kirk Williams

Kirk Williams joined the EBCE Program in September, 1973. His father is a college graduate employed as an insurance agent, and his mother operates a small business concern. The Williams' family own a home in a middle income neighborhood.

1. Background

Kirk entered EBCE at the beginning of his senior year. He is a handsome, well-spoken young man whose scholastic achievements had been mediocre to poor in spite of above average intelligence. During the intake interview Kirk mentioned that he joined the Program to help him find out what career would be best for him and to help him define life goals. He was interested in exploring a career in auto mechanics.

Kirk's transcripts showed he had a C average during tenth and eleventh grades. During the ninth grade, when his grade average was even lower, his composite grade level equivalent as measured by the STS Educational Development Series was found to be 8.1; when compared with a national norm group, Kirk's achievement was somewhat below his grade level placement. The major factor that contributed to this was his low scores on subtests in basic skills and solving problems in social studies.

Kirk also earned low scores on the Iowa Tests of Educational Development administered in September, 1973 at EBCE. His composite score was at the 22nd percentile when compared with a national norm group of twelfth graders. Kirk's highest score on any of the subtests was in science, on which he scored at the 37th percentile

when compared to the norm group. His lowest scores were in Language Arts, Reading, and Use of Sources. He scored at the 14th percentile in Language Arts and at the 19th percentile in both Reading and Use of Sources.

The Kuder Occupational Interest Survey, which was administered to Kirk during orientation, indicated that his interests were similar to those of persons working in skilled or semi-skilled trades, postal clerks, and policemen. Interestingly, his expressed interest correlated quite closely with one of his measured ones, auto mechanics.

Analysis of the Career Maturity Inventory administered during orientation provided helpful information: Kirk's attitudes and feeling toward making a career choice and entering the world of work were below average when compared with national norms of other high school seniors; on the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Kirk's scores were much better. He earned quite high scores on two subtests, "Knowing About Jobs" and "What Should They Do" and he registered average or near average scores on the other three parts.

2. EBCE Participation

During his first two weeks in EBCE, Kirk, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and experience site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with his selections.

a. Academic Experience

On entering EBCE, Kirk required one credit in English 12, four-tenths of a credit in physical education, and one credit in an elective subject. To meet these requirements, in September Kirk enrolled in English 12/communications, career awareness, and career decision making and arranged to satisfy his physical education requirement through participation in a course in karate. He also decided to take mathematics as an elective subject, but dropped it at the start of the second semester.

While Kirk was in EBCE, he performed satisfactorily in all areas except mathematics. In this area, according to his

learning coordinator, he demonstrated lack of initiative and failed to turn in homework assignments. Kirk's learning coordinator felt that he had shown no noticeable change in cognitive skills while he was in EBCE, but that he had shown some improvement in learning attitude. His parents felt that Kirk had "learned to like school again" due to participating in EBCE, but as a result of his EBCE experience, he "seemed to get lazy with his academic work".

b. Site Placements

After orientation, Kirk was placed at the police department at his own request. He remained at this experience site for the maximum 13 weeks during which time he spent 51 days there. He observed the work of policemen in the juvenile division and the traffic division. He rode with a patrolman and kept a detailed log of all activities in which that patrolman was involved for a period of one week. Kirk recorded all calls coming in and the time and specifics of each call. Later, he classified them and explained what action was taken on each. Another site-related activity involved interviewing a detective on changing ideas and procedures in juvenile law and reporting in writing on the results of the interview. Kirk produced excellent products in both instances. He became extremely interested in police work and even volunteered to work 24 hours of overtime for the police department and, according to the resource person, "was responsible for breaking a burglary ring."

Kirk's second experience site placement was with a company which sold and repaired motorcycles. He remained at this site for 11 days; at this point he decided he did not want to explore this sort of job further "because there is no future in motorcycles because (of the) gasoline shortage." Also, Kirk found out that although he liked to ride motorcycles he did not like to work on them and "the pay (for this sort of job) isn't very good."

A government agency involved with recreation and protection of the environment was Kirk's next experience site. Kirk said of this short placement (nine days), "There really wasn't much to do because it was around January when I went, and the fire season comes in (the) spring. The whole time I was up there, there was only one fire. A motor home rubbed against the side of the bank and blew up. (On) my last day there, the timber forester and I went up to mark timber for cutting and sending to the paper mill. I really wasn't too interested in the site, but it was kind of fun."

Kirk was then placed at a local fire department for two weeks. He initially wanted to explore this career because it was another protective job but asked to be removed from the experience site because the long periods of inactivity bored him. He said of the job of fireman, "It is o.k. if you like to work on 24-hour shifts. If you like to fight fires, it is o.k., but to tell you the truth, I don't think

I would like it very much because it is a very boring job sitting in the fire department every third day and sleeping there in the night."

Kirk's final site experience was at a local TV station. He remained here for a total of nineteen placement days because he requested an extension of his placement. While at the radio station, he compiled a short film and wrote an accompanying script around a topic of his choice. At the end of this site experience Kirk said, "I think it was the most interesting site I've been on this year. I rode around with the photographer and the interviewer. We went to various places, like the governor's press conferences, funerals, and on-the-street interviews. We also went on sports assignments, like basketball games, track meets and sports shows. My last week there I was sent out on my own assignment with a camera to get an interview. I also worked in the Control Room for about a day." Kirk would have liked to explore this experience site or other similar ones for a longer period but because the school year had ended, he was unable to do so.

c. Assessment

Although Kirk did not have as many site experiences as he would have liked, he enjoyed those he did and frequently talked about them with his parents. His parents felt positively about this aspect of the EBCE Program because their son "would not have had any opportunities to learn about

careers" at his home high school and because EBCE had a definite effect in helping him form career plans.

Kirk's learning coordinator also believed he had made satisfactory progress in career awareness and decision making. She said, "We have always received excellent reports from experience sites about Kirk. He has had excellent attendance and a very good attitude at all job sites. Kirk turned in excellent Career Exploration Guides and has always seemed to enjoy his sites thoroughly."

On the Career Maturity Inventory, Kirk registered large gains on the Attitude Scale and on Part Five of the Competence Test, "Knowing About Jobs". His scores dropped sharply on Part One of the Competence Test, "Knowing Yourself".

3. Future Plans

Kirk plans to go into the field of radio communications and is now working full time at a local radio station. It is interesting that such a career is quite divergent from both his expressed and measured interests at the time of intake.

Table 5-6

Experience Site Assignments
of Kirk Williams
Case #6

Period	Experience Site Assignment	Scheduled Days on Experience Site
9/4-9/14	Orientation at EBCE (no site assignment)	--
9/17-12/14	Police Department	51
12/17-1/18	Motorcycle Dealer	11
1/21-1/25	No experience site assignment	--
1/28-2/7	Government Agency (Environmental Protection & Recreation)	9
2/8-2/18	No experience site assignment	--
2/19-3/1	Fire Department	8
3/4-4/5	Television Station	15
4/8-5/13	No experience site assignment	--
5/14-5/17	Television Station (extension)	4
5/20-5/24	No experience site assignment	--

G. Case History #7 - Anna Glidden

Anna entered the EBCE Program for the first semester of the 1973-74 school year. Her parents are not well educated. Her stepfather is a high school dropout, and her mother completed elementary school. Anna's parents own their own home in a lower middle income neighborhood in a suburban area. Her father works as a plumber, and her mother is not employed.

1. Background

When Anna, who was 17, entered EBCE, she had little inclination to study; she enjoyed sports. She tended to be a showoff, possibly to compensate for feelings of inferiority.

In her junior year Anna said that after completing high school, she planned to work in a factory or in a social service occupation. She did not plan any higher education, but during her EBCE orientation she mentioned that she planned to enter some sort of skill training program after high school. She also expressed interest in becoming an airline stewardess.

Anna's high school transcript showed that she was a below average student, probably in part due to a lack of interest. Her transcript showed many withdrawals from courses, indicating failure to follow through on activities to completion. Her achievement test scores were slightly below average in most areas; her composite grade level equivalent, as measured by the STS, was 10.7, meaning that when compared to a national norm group, Anna's achievement was slightly lower than her actual grade placement, 11.2 at the time of test administration.

Anna had low scores on the Iowa Test of Educational Development, which was administered during September, 1973, at EBCE. Her composite score was at the 24th percentile when compared with a national norm group of twelfth graders; however, she showed a good deal more strength on three subtests--Language Arts, Use of Sources and Reading, on which she scored at the 48th, the 44th, and 38th percentiles, respectively.

The Kuder Occupational Interest Survey, which was administered to Anna during orientation, showed that her interests were most similar to persons working in clerical, sales, and service occupations.

Analysis of the Career Matuirty Inventory also administered during orientation provided helpful information: Anna's attitudes and feelings toward making a career choice and entering the world of work were about average when compared with national norms of other high school seniors; on the Competence Test of the Career Maturity Inventory, which is more concerned with knowledge of occupations and the decisions involved in choosing a career, Anna earned high scores on Part 1, "Knowing Yourself," and Part 5, "What Should They Do?" Her score on Part 2, "Knowing About Jobs," was about average, and her scores on Part 3, "Choosing A Job," and Part 4, "Looking Ahead," were below average.

2. EBCE Participation

During her first two weeks in EBCE, Anna, with the rest of the student body, completed the following activities:

- Attended a brief overview of the EBCE Program

- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and experience site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with her selections.

a. Academic Experience

When she entered EBCE, Anna required three and one-half credits, including one credit in English 12, one-half credit in social studies (American studies) and two credits in elective subjects to meet high school graduation requirements. She also needed credits in career awareness and career decision-making to graduate from EBCE. For the first semester Anna, on the advice of her learning coordinator, enrolled in social studies, English/communications, typing I, career awareness and career decision making. At the start of the second semester, she found she was deficient in basic mathematic skills and also added math as an elective.

After joining EBCE Anna's grades improved a good deal. She earned a B+ average for the year she participated in the Program. Her learning coordinator felt she had showed great improvement in learning attitude and some improvement in cognitive skills during this period. Her parents rated the quality of instruction at EBCE as "excellent" and felt that the EBCE Program provided their daughter with a much better opportunity for learning than regular schools.

b. Site Placements

Anna's first experience site placement was at the city police department where she spent six days. She observed the work done in the communications department and learned to work the teletype machine. She did not like this placement because she was unable to become involved in the work that was being done and felt that she was "not wanted there". She requested a change of experience sites.

Her next placement was at a travel bureau where she remained for 30 days. She answered the telephone, made reservations, and did some clerical work. She said, "This was one of the best placements I went to. I enjoyed it very much and hated leaving it. I was treated just like an employee and in some cases even better. When I needed help, I could turn to anyone that was there. I feel I got along with everyone."

Anna's third placement was especially developed for her in an auto body shop operated by a government training program. She says of this site, "I did body work on cars, removing car parts, sanding, welding, painting and putting parts back on cars. I enjoyed this placement also. I was treated exceptionally well. I took pictures of a car I helped fix up, and I took pride in my work. I received compliments when I did good work and was told when things were not done right. I feel I learned a lot from this placement. I was happy that they accepted me. I just wish that other students could have attended also as I know they would have enjoyed it as much as I did. I was mixed in with other students who would help me and show me or tell me what I wanted to know and be able to do." While she was placed at the auto body shop, Anna did an excellent illustrated report on the process of body work.

Anna was then placed at an elementary school. During this six day period she helped to organize and conduct classes for grades 1 - 6 in physical education. She enjoyed this placement "because it is a rewarding experience to see the kids learn things. Also, there never was a dull moment because every half-hour there was a different gym class." In addition, Anna liked the resource person at this site because she was "a good physical education teacher to work with." Nevertheless, Anna decided not to request an extension at this site, probably because a college degree would be

required to pursue a career as a physical education teacher.

Anna was then placed at a local motel with a switchboard operator. She was interested in exploring this career. Here she liked "meeting new people and talking to all sorts of people on the phone." She liked this placement because of the variety of experiences it offered. While there she observed the work done on the switchboard and explained the procedures in a detailed report of excellent quality for which she received both career education and English/ communications credits. At the end of this placement Anna decided that she liked the job of operator, but would like the same job in a somewhat different setting. She was placed briefly at the telephone company. Here she was introduced to the direct dialing long distance operator and the Charleston toll operator. She "was shown and taught everything they had to offer, which was a whole lot." She felt "it was really a fantastic place to see."

During the last month she was in the Program Anna had no site placements but instead remained at school to complete her academic learning activities.

c. Assessment

Anna's learning coordinator thought she "enjoyed the majority of her site placements." She said, "She has done well in career decision making. I think she enjoyed the

majority of her job placements. She received very favorable evaluations from the employers. She is a hard worker and accepts responsibility well."

Her mother felt that as a result of her daughter's participation in EBCE, "mixing with people became easy for Anna". She changed in many ways, all for the better. She talked about everyone and everything in EBCE; she loved every minute of it."

On the Competence Test of the Career Maturity Inventory Anna registered important gains on Part 1, "Knowing Yourself;" Part 3, "Choosing a Job;" and Part 4, "Looking Ahead." Her scores on the other parts, with the exception of Part 5, "What Should They Do?" remained about the same.

3. Future Plans

Anna plans to join the Air Force or to become an airline stewardess. This is one of the career interests which she had expressed during orientation but was unable to explore.

Table 5-7

Experience Site Assignements
of Anna Glidden
Case #7

Period	Experience Site Assignment	Scheduled Days on Experience Site
9/4-9/14	Student Orientation at EBCE (no site assignment)	--
9/17-9/26	City Police Department	6
9/27-10/8	No experience site assignment	--
10/8-12/12	Travel Bureau	30
12/13-12/21	No experience site assignment	--
12/24-1/1	Christmas vacation	--
1/2-1/25	No experience site assignment	--
1/28-2/20	Auto Body Shop	12
2/21-2/22	No experience site assignment	--
2/25-3/6	Elementary School	6
3/7-3/27	No experience site assignment	--
3/28-4/11	Motel	9
4/15-4/19	Spring vacation	--
4/22-4/23	No experience site assignment	--
4/24	Telephone Company	1
4/25-5/20	No experience site assignment	--

H. Case History #8 - Russell Francis

Russell Francis entered the EBCE Program in January, 1974. His widowed mother is a college graduate who is not gainfully employed.

1. Background

When Russell entered the EBCE Program, he was a reserved, sincere young man who enjoyed outdoor activities. His reason for entering the EBCE Program was to get "help in finding the job I would like to have when I get out of school." He was interested in exploring all or some of the following careers: forestry, welding, flight training, and counseling

After high school, he planned either to go to work, to enter some skill-training program, or to enter a college or university.

Russell's transcript revealed that he was a student of average ability. His I.Q. score on the Otis-Lennon Test of Mental Ability was 100 at a 1967 testing. In his senior year the STS Educational Development Test showed his total ability in terms of grade level score to be 12.0.

In spite of the amount of ability indicated by these test scores, Russell's educational achievement had been below average. Lack of motivation could be inferred as during the first semester of his senior year Russell had an excessive number of unexcused absences. His learning coordinator said "At first he was capable, but not very well motivated although he was friendly and polite."

Russell earned low scores on the Iowa Tests of Educational Development, administered in January, 1974, at EBCE. His composite score was at the 21st percentile when compared with a national

norm group of twelfth graders. Russell's highest scores on the subtests occurred in mathematics and science, on which he scored at the 34th and the 35 percentiles, respectively, when compared with a national norm group of high school seniors. His lowest scores were earned on social studies and use of sources; on these subtests he scored at the ninth and tenth percentiles. These scores seem to indicate that he possessed little ability or interest in the latter areas.

The Kuder Occupational Interest Inventory which was administered to him during orientation showed his interests to be most similar to persons working in the skilled trades or clerical and sales occupations.

Analysis of the Career Maturity Inventory administered during orientation provided helpful information: Russell's attitudes and feelings toward making a career choice and entering the world of work were slightly above average when compared with national norms of other high school seniors; on the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Russell earned average or close to average scores on all subtests except on Part 2, "Knowing About Jobs."

2. EBCE Participation

During his first two weeks in EBCE, Russell, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes
- Made subject area and employer site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with his selections.

a. Academic Experience

Russell required one-half credit in English 12 in order to graduate from his home high school, and also needed credits in career awareness and career decision making to graduate from EBCE. In addition to these required courses, Russell also decided to take a one semester course in social studies, specializing in home management.

During the semester he spent in EBCE Russell's grades improved greatly. He earned a B+ average. His learning coordinator felt that he had demonstrated improvement in learning attitude. The ITED showed a large gain in the Reading subtest and a large drop

in Science, but no other important gains or losses when compared to a national norm group of seniors.

b. At orientation Russell had mentioned that he was interested in purchase and sales work. He was first placed with a salesman in an organization which sold electronic equipment. Russell did not particularly like this placement because, as he said, "I don't know much about electronics." He requested another type of sales placement after the initial two week placement period.

His next placement was with a salesman at a local department store. Russell enjoyed this placement very much and requested two extensions. In his Career Exploration Guide, Russell said that he still liked the job of salesman because "there are a lot of nice people to work with although the money is not that good."

His resource person in the words of his learning coordinator "was very happy with him and reported no problems and good experiences for him."

Russell's third placement was at a local hospital where he was placed in the pharmacy department. He liked the placement, remaining for 19 days, but decided not to investigate the career of pharmacist "because there is so much schooling you have to go through, and I don't think I could handle it."

His final experience site was a Charleston radio station, where Russell explored the career of disc jockey. He remained for only two weeks because he felt "it is not a very exciting job."

c. Assessment

Because of his site placements, Russell felt that he had learned more about what he would do when he gets out of school and also about what he wants to do for a career.

Russell's learning coordinator believed he showed some improvement in interpersonal skills as a result of participation in the Program.

On the Career Maturity Inventory Russell showed important gains on three parts of the Competence Test: Part 2, "Knowing About Jobs;" Part 3, "Choosing a Job;" and Part 4, "Looking Ahead." No important gains or losses occurred on other parts of the Career Maturity Inventory.

3. Future Plans

Russell plans to study business administration at Fairmont State College starting in the fall, 1974.

Table 5-8

Experience Site Assignments
of Russell Francis
Case #8

Period	Experience Site Assignment	Scheduled Days on Experience Site
1/28-2/5	Student orientation at EBCE (no experience site assignment)	--
2/6-2/15	Organization selling electronic equipment	6
2/18-3/15	Department Store	15
3/18-4/26	Hospital	19
4/15-4/19	Spring vacation	--
4/29-5/6	No experience site assignment	--
5/7-5/17	Radio Station	8
5/20-5/24	No experience site assignment	--

I. Case History #9 - Caroline Jones

Caroline Jones entered the EBCE Program in January, 1974. Her mother and stepfather, both college graduates, are employed in professional or managerial jobs. The Jones moved to Charleston from Greenbrier County in 1972.

1. Background

Caroline joined EBCE principally because she was unhappy at her home high school and also because she didn't have any idea about what she wanted to do after graduating from high school.

Caroline's high school transcript indicated that when she entered EBCE she was a C average student whose grades had dropped from tenth through eleventh grades. Her test scores suggested that she was capable of better grades. Her composite grade score on the STS Educational Development Battery, administered at grade 11.2, was 13.1. Also, her composite test score on the ACT Program Battery was at the 94th percentile when compared with a norm group of college bound students.

Caroline also earned high scores on the Iowa Tests of Educational Development, which was administered to her during January, 1974, at EBCE. Her composite score was at the 86th percentile when compared with a national norm group of high school seniors. She showed the most strength on the Language Arts and Social Studies subtests of the ITED.

The Kuder Occupational Interest Survey, which was administered to Caroline during orientation, showed that her interests were highly similar to persons working health and mathematically oriented careers

(i.e., computer programmer, high school math teacher, mathematician, physical therapist, dietician, dental assistant, optometrist, pharmacist, physician, dentist, etc.).

Analysis of the Career Maturity Inventory, also administered to Caroline during orientation, provided helpful information: Caroline's attitudes and feelings toward making a career choice and entering the world of work were above average when compared with national norms of other high school seniors. She scored at the 71st percentile on this section of the CMI: on the Competence Test of the Career Maturity Inventory, which is more concerned about knowledge of occupations and the decisions involved in choosing a career, Caroline's scores also far surpassed those of other high school seniors.

2. EBCE Participation

During her first two weeks in EBCE, Caroline, with the rest of the student body, completed the following activities during orientation:

- Attended a brief overview of the EBCE Program
- Visited several experience sites
- Attended small group rap sessions with EBCE staff members to have questions answered about the Program
- Together with a small group of other students, attended overviews on EBCE subject matter offerings presented by learning coordinators
- Took standardized tests for diagnostic and evaluation purposes

- Made subject area and employer site selections based on expressed and measured needs and interests; and with the help of learning coordinators, filled out the necessary forms associated with her selections.

a. Academic Experience

On entering the Program, Caroline required one-half credit in English 12 and one-half credit in social studies to graduate from her home high school. To graduate from EBCE, she also needed credits in career awareness and career decision making. In addition to these required courses Caroline also decided to take an elective course in mathematics, specializing in college algebra.

After joining EBCE, Caroline's grades improved, and she earned a B average for the semester she was enrolled in the Program. She did especially good work in math and English in which she was most interested. Her learning coordinator said, "Caroline's writing ability is above average. Her work in English has been of fine quality and she is on schedule in college algebra." Her learning coordinator further stated that Caroline completed eight activities in algebra, all of which were of excellent quality, but that she "never committed herself too much to social studies and did not do a sufficient amount of activities in career awareness." It seemed as if Caroline found it very difficult to complete activities in required areas in which she had little interest.

On the ITED, she registered an important gain in one area--Use of Sources. Her composite score showed very little improvement when compared with a national norm group.

b. Site Placements

Caroline's first placement was arranged with the executive secretary of a church council, an autonomous body whose major purpose is to facilitate cooperation with congregations, agencies, and movements which further the common purposes of member churches. She did not like this placement because she was not allowed to observe counseling sessions and only remained there two days.

Her next placement was at an alcoholism and drug abuse treatment facility. She remained there for ten days, but did not like this experience site either. She said, "While at this site, I learned very little about counseling. The only thing I learned was how the program works. I know as little about counseling as before I went there. I cannot truthfully say whether or not I like this type of job."

Caroline's third placement was with an elementary school group counseling project. She collected materials and information on the project and developed an informative brochure describing the history and goals of the project. She did not turn in a Career Exploration Guide related to this placement, but described it to her parents as a good experience.

Last, Caroline was placed for 22 days at a local hospital in the laboratory. Here she observed the job of medical technologist. She said, "The job as whole is very interesting. I learned something new every day or so in the field of medicine such as viewing breast cancer or learning how a urine analysis is performed. The only

thing that I am more or less afraid of on the job is the life and death responsibility put upon a lab technicain." In an Activity Sheet, she elaborated further on what she had learned at this experience site and compared it with other sites where she had been placed. She said, "The lab at Hospital A has proved to be very interesting and enjoyable. By being in the lab for the past three weeks, I have learned that I am even more interested in medicine than I once supposed, but I still have the desire to work with people. In the past two job sites, I learned very little. I either sat around doing nothing, or I did work that the resource person should be doing himself. At the lab, I was able to observe and learn a lot about something in which I was interested. So far the lab has been the best job site for me."

c. Assessment

Caroline's learning coordinator felt that she showed some improvement in judgment, self-confidence, and self-assurance as a result of participation in EBCE, but no improvement in learning attitude or cognitive skills and some regression in motivation. Her parents felt that as a result of her participation, Caroline became happier, worked harder at her studies, and chose a career area, health work of some type.

On the Career Maturity Inventory, Caroline registered some gains on both the Attitude Scale and the Competence Test; however, it is doubtful whether these gains were significant.

The only Student Evaluation Form turned in on Caroline rates her as average or above average on personal qualities and work and performance traits.

3. Future Plans

Caroline plans to attend Marshall University and probably will major in nursing.

Table 5-9

Experience Site Assignments
of Caroline Jones
Case #9

Period	Experience Site Assignment	Scheduled Days on Experience Site
1/28-2/6	Student Orientation at EBCE (no site assignment	--
2/7-2/8	Church Council	2
2/11-3/1	Alcoholism and Drug Abuse Treatment Facility	10
3/4-3/8	No experience site assignment	--
3/11-3/29	Elementary School Group Counseling Project	12
4/1-4/5	No experience site assignment	--
4/9-5/24	Hospital A	22

IV. Summary and Conclusions

A. Introduction

The purpose of this section is to summarize the results of the nine case histories and to generalize among the nine students whose records were analyzed. Five full-year and four half-year students were studied. All learning coordinators were represented by at least one student. An effort was made to include students of all ability levels in the sample.

B. Background Information

Six of the nine students who were selected to be subjects of case histories were from upper-middle class or middle class homes. (Their parents were college graduates working in professional, managerial, or sales occupations.) Six of the student studied had C or D grade averages at their home high schools, two had a B average, and one had an A average.

The nine students represented demonstrated a variety of needs and interests; however, it is known that a large proportion of them joined EBCE either because they had no career plans or because they were unhappy at their home high schools.

On the Career Maturity Inventory, students tended to score lower on the Attitude Scale than they did on the Competence Test as compared with a norm group of twelfth graders. (All nine students earned average or above average scores on the Competence Test, but four students earned below average scores on the Attitude Scale.)

C. Academic Program

1. Orientation

Standardized orientation procedures were used for both full-year and half-year students; however, the orientation of full-year and

half-year students differed somewhat, since some changes were made in orientation methods at midyear.

2. Academic Requirements and Subject Area Selections

Full-year students (5) required an average of 2.9 credits, while the requirements of half-year students (4) averaged .63 credits.

Students' subject area selections generally included only those subjects needed for graduation or to acquire senior status, plus the required courses in career awareness and career decision making.

3. Academic Achievement

Four of the nine students improved substantially academically during the period in which they were enrolled in the EBCE Program. The five other EBCE students whose case histories are given received mixed ratings regarding their academic achievement while in the EBCE Program. (Ratings were based on data from learning coordinators, parents, and the students themselves.)

D. History of Career Exploration at EBCE

Most students (5 of 9) were very satisfied with their site placements, because most were compatible with their expressed and/or measured interests. Four students were either somewhat satisfied with all their placements or were totally satisfied with certain experience sites and totally dissatisfied with others. Six students have made specific career choices as a result of their experiences in the EBCE Program; of these, four intend to enter professional or managerial occupations, and two plan to enter technical jobs. Five students have decided to enter college this fall and two are going to undergo advanced technical education.

SECTION 6

Summary and Conclusions of Experience-Based Career Education

September 1, 1973

Through

June 30, 1974

I. Preface

The Appalachia Educational Laboratory's Experience-Based Career Education Program has been in existence for two years. Originally, the project was funded by the United States Office of Education (USOE), later by the National Institute of Education (NIE). The directive from USOE was to develop a community-based alternative educational program for high school seniors.

The first year of operation of the AEL/EBCE Program consisted of developing and expanding the Experience-Based Career Education concept. The project started that year with 22 students in the fall and recruited 23 more students in January. At that time 35 experience sites were participating. During the first year a great amount of time and effort was spent in developing the curriculum and other components of the project.

The second year of operation had as it's goal the refinement of all processes and documents so that by June, 1974 the project would be stabilized. That is, the process by which EBCE delivers academic training and career exposures would be constant across all students. The project started the second year with 44 students in the fall and recruited 44 more students in January. At that time 80 experience sites were participating. During the second year approximately 40 more sites agreed to participate giving a total of about 120 experience sites. The first semester of the second year was used for final revision, writing needed documents, and having these documents printed. The second semester of the second year was used to test the Instructional Delivery Subsystem, plus support subsystems.

II. Description Summary of Student Populations

There were five distinct groups of students which contributed to the evaluation of the AEL/EBCE Program in FY74. Three of the five groups were experimental and two groups were used for comparisons. The five groups of students were identified as follows:

EBCE-I: Those experimental students who were classified as 12th grade and who participated in the EBCE Program the entire year.

EBCE-II: Those experimental students who were classified as 12th grade and who participated in the EBCE Program only the second semester.

EBCE-III: Those experimental students who were classified as 11th grade and who participated in the EBCE Program the entire year.

COOP: A random sample of Kanawha County students who were classified as 12th grade and who were enrolled in a Vocational Cooperative Work Study Program within the Kanawha County Schools.

RANDOM: A random sample of Kanawha County students who were classified as 12th grade and who were enrolled in the Kanawha County Schools.

Questionnaires and standardized tests were administered to all students to establish the comparability of the students. Students were compared on the following variables: sex, race, parental background, grade point average, attendance records, achievement test history, and on student goals.

The five groups of students were similar on the sex, race, and parental background variables.

A multivariate analysis of variance was used to compare the groups on the grade point average, attendance records, and on the achievement test variables. A significant difference was found between the four groups of students containing seniors. The EBCE-I students were consistently lower in grade point average and in attendance than the other three groups of seniors. The RANDOM group students were consistently higher in grade point average and attendance but not significantly different from the EBCE-II or COOP students.

Long-range goals for the four groups of seniors were similar. Reasons given by the EBCE-I students and EBCE-II students for joining the experimental program were dissimilar. The EBCE-I students were more disenchanted with their home schools whereas the EBCE-II students were more interested in learning about careers.

III. Summary of Formative and Summative Evaluation Findings

Part III reports the major accomplishments and findings of the formative evaluation and summative evaluation. Wherever possible, findings will be integrated with both the formative and summative evaluation.

A. Summary of the Formative Evaluation Accomplishments and Findings

This year the formative evaluation was divided into two parts: developing the plan, developing instruments, establishing timelines; and carrying out the plan. The Formative Evaluation Plan was revised during September and October; instruments were developed in November. The Plan contained a general overview of the project, a

detailed description of each component or subsystem of the AEL/EBCE Project and proposed evaluation questions with appropriate respondent groups, proposed instruments and a priority assigned to each question for each of the subsystems. The plan was viewed by N.I.E. and AEL/EBCE Project staff as one of the most comprehensive and detailed formative plans ever submitted. Probably the major fault with the plan was its limited amount of flexibility to respond to every-day type of situations.

The intent of the formative evaluation for the FY74 contract year was to evaluate the interrelationships between subsystems and to determine if and when those subsystems stabilized.

The formative evaluation analyzed all subsystems inherent to the EBCE Program in terms of whether the subsystems had stabilized or not. The term, stabilized, is defined as: the subsystem is understood by those using it, is consistent across those using it, and does what it was designed to do.

The information in Table 6 describes the findings of each subsystem in terms of: the particular subsystem and whether the subsystem has stabilized.

Table 6

Subsystem Stabilization

Subsystems	Stabilized
1. Experience Site Identification and Recruitment	Yes
2. Experience Site Analysis	Yes

Subsystems	Stabilized
3. Recruitment and Selection of Students	Yes
4. Delivery of Instructional Services	Partially
5. Support Subsystems	
a. Materials	Yes
b. Transportation	Yes
c. Learning Center	Yes

The Experience Site Identification and Recruitment Subsystem was viewed as stable by the evaluation staff of AEL/EBCE. That is, the subsystem met all the criteria of stabilization, it was understood by those using it, it was consistent across those using it, and it did what it was designed to do.

The Experience Site Analysis Subsystem was viewed by the evaluation staff of AEL/EBCE as stable. That is, the subsystem met all the criteria of stabilization, it was understood by those using it, it was consistent across those using it, and it did what it was designed to do.

The Recruitment and Selection of Students Subsystem was viewed by the evaluation staff of AEL/EBCE as stable. That is the subsystem met all the criteria of stabilization, it was understood by those using it, it was consistent across those using it, and it did what it was designed to do. (Even though this subsystem was considered to be stable, it was not considered to be efficient. The operation of this subsystem required a great deal of staff time over a period of several months. The inefficiency of the recruitment strategies did not relate totally to the project but was partially due to EBCE being a Research and Development effort, entailing late or uncertain

funding, heavy emphasis on testing, imposition of control group(s), and experimental program. The Recruitment and Selection subsystem will also be analyzed for the FY75 contract year. One unique aspect of this test will be the study of recruitment and selection practices for the KCSS/EBCE project. This will help the AEL/EBCE evaluation staff answer the questions related to recruiting and selecting students for an EBCE project located within a school). The Delivery of Instructional Services Subsystem was viewed by the evaluation staff of AEL/EBCE as partially stable. That is, all but one component of the Delivery subsystem, Placement of Student at Experience Sites, met all the criteria of stabilization. The rest of the Delivery of Instructional Services Subsystem was understood by those using it, it was consistent across those using it, and did what it was designed to do. (It was impossible to adequately analyze the placement of students due to the inadequacy of the evaluation instrument. An evaluation of the placement of students will be done during the FY75 contract year.)

Support Subsystems: Materials, Transportation and Learning Center were viewed by the evaluation staff of AEL/EBCE as stable. That is, all components except transportation met the criteria of stabilization, they were understood by those using them, they were consistent across those using them, and they did what they were designed to do. Even though this support subsystem was considered stable, the transportation component was of questionable stability. This system was the hardest to evaluate due to lack of sufficient adequate low cost public transportation. The geographic region from which the project draws students extends approximately 40 miles (radius) from the EBCE learning site. Because public transportation

in Kanawha County is minimal and expensive, transportation to and from the site causes a large expense to the project. (It is anticipated by EBCE project staff that the transportation issue will be handled more efficiently when the program is housed within a school and only students from this school are enrolled in EBCE. This concept will be addressed during the FY75 contract year.)

B. Summary of Summative Findings

The primary purpose of the summative evaluation activities during FY74 was to gather valid and reliable data to test the fifteen EBCE hypotheses. Hypotheses were generated concerning student achievement, student attitude, parent attitude, and employer attitude.

The same groups of students depicted previously contributed to the summative evaluation efforts. There were three distinct EBCE groups and two comparison groups. Students were administered achievement tests and Career Maturity Inventories on a pretest-post-test basis. Attitude data were gathered from students at mid-year and again at the end of the year.

Eleven of fifteen hypothesis were either completely or partially accepted, three were rejected and one was not tested. EBCE students performed as well as the comparison students on awareness skills and in fact, displayed a greater gain in self-concept than did the comparison group students.

Important gains were made by EBCE students on certain aspects of Career Maturity as measured by the Career Maturity Inventory. In those parts of the Career Maturity Inventory in which the EBCE students did not show important gains, they did as well as the comparison group students. EBCE students had important gains over comparison

group students on the attitude scale of the Career Maturity Inventory and in their capability to plan for their future as measured by the Career Maturity Inventory. EBCE students and comparison group students were similar in problem-solving ability, ability to choose realistic career goals, and in their ability to know themselves as measured by the Career Maturity Inventory. Although there was evidence that FY73 graduates had very little difficulty in finding a job or school, there were no data available to make comparisons.

The case histories revealed that full-year students averaged 2.9 credits and half-year students averaged .63 credits.

Four of the nine students studied improved substantially academically during the period in which they were enrolled in the EBCE Program. The five other EBCE students whose case histories are given received mixed ratings regarding their academic achievement while in the EBCE Program. (Ratings were based on data from learning coordinators, parents, and the students themselves.)

Most students were very satisfied with their site placements, because most were compatible with their expressed and/or measured interests. Some students were either somewhat satisfied with all their placements or were totally satisfied with certain experience sites and totally dissatisfied with others. Six students have made specific career choices as a result of their experiences in the EBCE Program.

EBCE students and graduates, EBCE parents and cooperating employers were very positive in their expressed attitude toward the EBCE Program. Kanawha County School officials and officials from the West Virginia Department of Education have publicly endorsed and are supporting the EBCE Program.

IV. Conclusions and Recommendations

Part IV of the Final Evaluation Report for Appalachia Educational Laboratory's Experience-Based Career Education Program reports all conclusions and recommendations deemed important by the AEL/EBCE Evaluation staff.

The conclusions are as follows:

The AEL/EBCE Program was judged very successful since it did successfully serve as an alternative educational program and an overwhelming majority of the hypothesis were met.

The AEL/EBCE Program has stabilized during FY74 contract year except for student recruitment and the transportation subsystems.

The AEL/EBCE Program has demonstrated an individualized personalized program.

It is recommended:

A follow-up of graduates and comparison groups be done during FY75. It is extremely important to follow these groups in order to test hypotheses, obtain longitudinal impact data, and to increase the knowledge base of career education.

Instrument(s) be identified or be developed, tested, and validated in the following areas: Interpersonal Skills and Career Maturity.

A projection study be conducted looking at operational staffing and organizational patterns during FY75. Projections should be made or a simulation conducted

as to the number of students each learning coordinator can handle and how many students can be handled by a program such as EBCE.

A study be conducted identifying the types of students who benefited the most from a program like the Experience-Based Career Education Program.

A comparative study be conducted to identify which types of students would benefit the most from various types of alternative educational programs.

APPENDIX A

Number, Title, and Authors

of

FY73-74 EBCE Evaluation Reports

Number, Title, and Authors of FY73-74 EBCE Evaluation Reports

No.	Title
	Employer-Based Career Education: Evaluation Summary, 1972-73 by Dr. James H. Sanders and Dr. Charles L. Bertram
36	Employer-Based Career Education: Selected Demographic Data from Students in the 1972-73 School Year by Dr. John T. Seyfarth, Dr. James H. Sanders, and Dr. Charles L. Bertram
37	Employer-Based Career Education: Analysis of Scores on the Career Development Inventory by Dr. John T. Seyfarth, Dr. James H. Sanders, and Dr. Charles L. Bertram
38	Employer-Based Career Education: Analysis of Scores on the Iowa Tests of Educational Development by Dr. James T. Ranson, Dr. James H. Sanders, and Dr. Charles L. Bertram
39	Employer-Based Career Education: Changes in Students' Attitudes as Measured by a Semantic Differential Instrument by Dr. James T. Ranson, Dr. James H. Sanders, and Dr. Charles L. Bertram
40	Employer-Based Career Education: An Investigation of Students' Scores on the Kuder Occupational Interest Survey as an Indicator of Program Outcomes by Dr. Ermel Stepp, Dr. James H. Sanders, and Dr. Charles L. Bertram
41	Employer-Based Career Education: Analysis of Data from the Student Information System by Dr. James T. Ranson, Dr. James H. Sanders, and Dr. Charles L. Bertram
42	Employer-Based Career Education: Students' Attitudes Toward the Program as Indicated by an Analysis of Interview Data by Dr. John T. Seyfarth, Dr. James H. Sanders, and Dr. Charles L. Bertram
43	Employer-Based Career Education: Parents' Attitudes Toward the Program as Indicated by an Analysis of Interview Data by Dr. John T. Seyfarth, Dr. James H. Sanders, and Dr. Charles L. Bertram
44	Employer-Based Career Education: An Investigation of the Use of Student Activity Sheets by Dr. John T. Seyfarth, Dr. Richard F. Meckley, Dr. James H. Sanders, and Dr. Charles L. Bertram
	Experience-Based Career Education: Interim Evaluation Report by Dr. John Cowan, Dr. John A. Hilderbrand, and Dr. James H. Sanders

APPENDIX B-1

Student Information Questionnaire

Student Information Questionnaire

Appalachia Educational Laboratory, Inc.
Charleston, West Virginia
September 10, 1973

NAME _____ DATE _____

1. Are you:

   ☐ Male

   ☐ Female

2. Are you:

   ☐ White

   ☐ Black

   ☐ Oriental

   ☐ Spanish Descent (Chicano, Puerto Rican, etc.)

   ☐ Native American

   ☐ Other (specify) _____

3. What is your current grade level (as of September 1973)?

   ☐ 10th grade

   ☐ 11th grade

   ☐ 12th grade

4. What is your birth date?

_____ _____ _____
MONTH DAY YEAR

5. What is your father's highest level of formal education completed?

- ☐ None
- ☐ Elementary School
- ☐ Some High School
- ☐ High School Graduate
- ☐ Some post-secondary (for example, some college, junior college, business school, trade or technical school)
- ☐ College graduate (four-year degree)
- ☐ Some graduate work
- ☐ Advanced degree (specify) _____

6. What is your mother's highest level of formal education completed?

- ☐ None
- ☐ Elementary School
- ☐ Some High School
- ☐ High School Graduate
- ☐ Some post-secondary (for example, some college, junior college, business school, trade or technical school)
- ☐ College graduate (four-year degree)
- ☐ Some graduate work
- ☐ Advanced degree (specify) _____

7. What are your long-range goals? Check only one.

- [ ] 1. CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent
- [ ] 2. CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter
- [ ] 3. FARMER, FARM MANAGER
- [ ] 4. HOMEMAKER OR HOUSEWIFE
- [ ] 5. LABORER such as construction worker, car washer, sanitary worker, farm laborer
- [ ] 6. MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official
- [ ] 7. MILITARY such as career officer, enlisted man or woman in the armed forces
- [ ] 8. OPERATIVE such as meat cutter; assembler; machine operator; welder; taxicab, bus, or truck driver; gas station attendant
- [ ] 9. PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress
- [ ] 10. PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner
- [ ] 11. PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman
- [ ] 12. SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker
- [ ] 13. SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter
- [ ] 14. TECHNICAL such as draftsman, medical or dental technician, computer programmer
- [ ] 15. OTHER (specify) _____
- [ ] 16. DON'T KNOW

8. What do you expect to be doing one year after completing high school?

- ☐ Working full-time
- ☐ Entering an apprenticeship or on-the-job training program
- ☐ Going into regular military service or to a service academy
- ☐ Being a full-time homemaker
- ☐ Attending a vocational, technical, trade or business school
- ☐ Taking academic courses at junior or community college
- ☐ Taking technical or vocational subjects at a junior or community college
- ☐ Attending a four-year college or university
- ☐ Working part-time
- ☐ Other (travel, take a break, no plans)

9. What is your major field of study?

- ☐ General Curriculum
- ☐ Vocational Education Curriculum
- ☐ College Preparatory Curriculum
- ☐ Other (specify) _____

10. Under FATHER, circle the one number that best describes the work done by your father (or male guardian). Under MOTHER, circle the one number that best describes the work done by your mother (or female guardian). The exact job may not be listed but circle the one that comes closest. If either of your parents is out of work, disabled, retired, or deceased, mark the kind of work that he or she used to do.

(Circle one number in each column.)

	Father	Mother
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	01	01
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	02	02
FARMER, FARM MANAGER	03	03
HOMEMAKER OR HOUSEWIFE	04	04
LABORER such as construction worker, car washer, sanitary worker, farm laborer	05	05
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	06	06
MILITARY such as career officer, enlisted man or woman in the armed forces	07	07
OPERATIVE such as meat cutter; assembler; machine operator; welder; taxicab, bus, or truck driver; gas station attendant	08	08
PROFESSIONAL such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress	09	09
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	10	10
PROTECTIVE SERVICE such as detective, policeman or guard, sheriff, fireman	11	11
SALES such as salesman, sales clerk, advertising or insurance agent, real estate broker	12	12
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	13	13
TECHNICAL such as draftsman, medical or dental technician, computer programmer	14	14

APPENDIX B-2

Career Maturity Inventory

Name of Instrument: Career Maturity Inventory[1] (CMI)

Rationale/Objective: The CMI was designed to provide an inventory on career choice attitudes and on career choice competencies.

Respondent Group: The CMI was administered to all experimental (11th and 12th grade) and to all comparison group (12th grade) students as a pre and post-test measure from the Kanawha County School Systems.

History of Development: The CMI formerly was entitled the Vocational Development Inventory (VDI). The Attitude Scale of the VDI was first administered in 1961-62. The CMI was published in 1963 and is a result of research and evaluation findings of the VDI and of additional career maturity research and definition.

Item Content: The CMI provides two types of measures: the Attitude Scale and the Competence Test. The Competence Test contains five parts. The six parts to the CMI and their descriptions are as follows:

Attitude Scale. This is a measure of the feelings, the subjective reactions, the dispositions that the individual has toward making a career choice and entering the world of work. Five attitudinal clusters are surveyed: involvement in the career choice process; orientation towards work; independence in decision making; preference for career choice factors; and conceptions of the career choice process.

Competency Test.

Part 1: Knowing Yourself (self appraisal)
This provides an inventory of a student's ability to assess facility in self-appraisal.

Part 2: Knowing About Jobs (occupational information)
This provides an inventory of the student's knowledge of the world of work.

Part 3: Choosing A Job (goal selection)
This provides an inventory of the student's orientation to the world of work and how to progress in it.

Part 4: Looking Ahead (planning)
This provides an inventory of the student's ability to plan for his/her future in the world of work.

---

[1]Crites, John O., Career Maturity Inventory Administration and Use Manual, CTB/McGraw-Hill, Del Monte Research Park, Monterey, California. 1973

Part 5: What Should They Do (problem solving)
This provides an inventory of the student's ability to solve problems which may confront him in pursuit of his career goals.

Administration Procedures: The CMI may be completed by any student in grades six through twelve (senior year of college for the attitude scale). The CMI can be administered in approximately 2½ hours (each part takes approximately 20 minutes). The instrument can be administered on an individual as well as group basis. The complete CMI battery or any subset of the six parts of the CMI may be administered.

Scoring Procedures: The publisher furnishes a scoring key for hand scoring or the answer sheets can be sent to the publisher for scoring. Percentile conversion tables are available in the manual.

Reliability: Test - retest reliability coefficients were calcualted for each of the six subtests and for the complete CMI battery. A total of 205 pairs of pretest - post-test subjects were used to calculate the reliability coefficients.

Test	No. of Items	r
Attitude Scale	50	.67
Part 1 - Knowing Yourself	20	.62
Part 2 - Knowing About Jobs	20	.61
Part 3 - Choosing A Job	20	.58
Part 4 - Looking Ahead	20	.58
Part 5 - What Should They Do	20	.62
CMI Battery	150	.39

Concurrent Validity: The AEL/EBCE staff ran some correlations over specific criteria collected to determine concurrent validity of the subtests of the CMI with other scales administered to EBCE students. The significant correlations are presented below.

Scale	r
Attitude Scale:	
ITED - Science	.34**
Use of Sources	.22*
EDS - Science	.17**
USA in the World	.14*
Solving Problems	.16**

Scale	r
Attitude Scale (cont'd)	
SIS-CSQ - Cognitive Skills	.16**
Learning Attitude	.15**
Social Adjustment	.16**
Maturity	.12*
Personal Adjustment	.13*
Vocational Readiness	.11*
Part 1 - Knowing Yourself:	
ITED - Reading Comprehension	.24*
Total Reading	.18*
Science	.26**
Use of Sources	.20*
EDS - Reading	.11*
Science	.21**
USA in the World	.13*
Problem Solving	.20**
SIS-CSQ - Learning Attitude	.11*
Social Adjustment	.16**
Maturity	.13*
Vocational Readiness	.15**
Part 2 - Knowing About Jobs:	
ITED - Reading Comprehension	.27**
Total Reading	.23*
Total Language Arts	.19*

Scale	r
Part 2 - Knowing About Jobs (cont'd)	
ITED - Mathematics	.24*
Science	.30*
Use of Sources	.40**
EDS - Science	.20**
USA in the World	.20**
Problem Solving	.26**
SIS-CSQ - Social Adjustment	.20**
Maturity	.11*
Personal Adjustment	.17**
Vocational Readiness	.13*
Part 3 - Choosing A Job:	
ITED - Reading Comprehension	.32**
Total Reading	.26**
Language Usage	.37**
Total Language Arts	.36**
Mathematics	.24*
Social Studies	.20*
Science	.24*
EDS - Reading	.10*
Mathematics	.15**
Science	.18**
USA in the World	.17**
Problem Solving	.21**

Scale		r
Part 3 - Choosing A Job (cont'd)		
	SIS-CSQ - Cognitive Skills	.12*
	Learning Attitude	.21**
	Social Adjustment	.19**
	Personal Adjustment	.10*
	Vocational Readiness	.13*
Part 4 - Looking Ahead:		
	ITED - Social Studies	.20*
	Science	.22*
	Use of Sources	.27**
	EDS - Mathematics	.13*
	USA in the World	.13*
	Problem Solving	.29**
	SIS-CSQ - Cognitive Skills	.11*
	Learning Attitude	.16**
Part 5 - What Should They Do:		
	ITED - Social Studies	.21*
	Use of Sources	.24**
	EDS - Mathematics	.19**
	Science	.13*
	USA in the World	.12*
	Problem Solving	.16**
	SIS-CSQ - Cognitive Skills	.13*
	Learning Attitude	.16**
	Social Adjustment	.18**

Dissemination: The AEL group is examining the CMI as a potential outcome measure to detect growth in various aspects of career maturity.

General Comments: The instrument does appear to provide valid and reliable data on various aspects of career maturity. The attitude scale appears to be particularly reliable and valid.

---

* Probability level = .05

** Probability level = .01

APPENDIX B-3

Senior Questionnaire

Senior Questionnaire

Appalachia Educational Laboratory, Inc.
Charleston, West Virginia

April 22, 1974

1. Are you

___ Male
___ Female

2. Are you

___ White
___ Black
___ Oriental
___ Spanish Descent (Chicano, Puerto Rican, etc.)
___ Native American
___ Other (Specify) _____

3. What is your father's highest level of formal education completed?

___ Don't Know
___ None
___ Elementary School
___ Some High School
___ High School Graduate
___ Some Post-Secondary (for example, some college, junior college, business school, trade or technical school)
___ College Graduate (four-year degree)
___ Some Graduate Work
___ Advanced Degree (specify) _____

4. What is your mother's highest level of formal education completed?

___ Don't Know
___ None
___ Elementary School
___ Some High School
___ High School Graduate
___ Some Post-Secondary (for example, some college, junior college, business school, trade or technical school)
___ College Graduate (four-year degree)
___ Some Graduate Work
___ Advanced Degree (specify)

5. In which of the following courses will you receive credit during the 1973-74 school year?

___ English/Literature
___ Mathematics
___ Social Studies
___ Science
___ Foreign Language
___ Career Education (work experience, etc.)

6. What are your long-range goals? Check only one.

___ 1. CLERICAL, such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent

___ 2. CRAFTSMAN, such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter

___ 3. FARMER, FARM MANAGER

___ 4. HOMEMAKER or HOUSEWIFE

___ 5. LABORER, such as construction worker, car washer, sanitary worker, farm laborer

___ 6. MANAGER, ADMINISTRATOR, such as sales manager, office manager, school administrator, buyer, restaurant manager, government official

___ 7. MILITARY, such as career officer, enlisted man or woman in the armed forces

___ 8. OPERATIVE, such as meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver, gas station attendant

___ 9. PROFESSIONAL, such as accountant, artist, clergyman, dentist, physician, registered nurse, engineer, lawyer, librarian, teacher, writer, scientist, social worker, actor, actress

___ 10. PROPRIETOR or OWNER, such as owner of a small business, contractor, restaurant owner

___ 11. PROTECTIVE SERVICE, such as detective, policeman or guard, sheriff, fireman

___ 12. SALES, such as salesman, sales clerk, advertising or insurance agent, real estate broker

___ 13. SERVICE, such as barber, beautician, practical nurse, private household worker, janitor, waiter

___ 14. TECHNICAL, such as draftsman, medical or dental technician, computer programmer

___ 15. OTHER (specify) _____

___ 16. DON"T KNOW

7. How certain are you of your long-range goals?

___ Very uncertain
___ Somewhat certain
___ Very certain

8. What do you expect to be doing one year after completing high school? Check only one.

___ Working full time
___ Entering an apprenticeship or on-the-job training program
___ Going into regular military service or to a service academy
___ Being a full time homemaker
___ Attending a vocational, technical, trade, or business school
___ Taking academic courses at a junior or community college
___ Taking technical or vocational subjects at a junior or community college
___ Attending a four-year college or university
___ Working part time
___ Other (travel, take a break, no plans)

9. During this school year, have you worked on a regular basis, outside of home, for money?

___ No
___ Yes, less than 10 hours a week
___ Yes, between 10 and 20 hours a week
___ Yes, between 20 and 30 hours a week
___ Yes, more than 30 hours a week

Use the following list of adjectives for questions 10, 11, and 12.

(a)	good	(f)	meaningless
(b)	bad	(g)	relevant
(c)	valuable	(h)	irrelevant
(d)	worthless	(i)	exciting
(e)	meaningful	(j)	boring

10. Please pick (from the above list) the three adjectives which best describe how you feel about your educational program during the 1973-74 school year.

_____ First Choice _____ Second Choice _____ Third Choice

11. Please pick (from the above list) the three adjectives which best describe how you think your training has prepared you for your chosen career.

_____ First Choice _____ Second Choice _____ Third Choice

12. Please pick (from the above list) the three adjectives which best describe how well prepared you think you are for post-high school training.

_____ First Choice _____ Second Choice _____ Third Choice

APPENDIX B-4

Educational Development Series

Name of Instrument: Educational Development Series[1] (EDS)

Rationale: The EDS was designed to provide a comprehensive assessment on student academic achievement.

Respondent Group: A matrix sampling scheme was used to administer the tests to the EBCE-I, COOP, and RANDOM students as a pre and post test measure of student achievement.

Item Content: Six scores can be identified, one from each of the six subtests. The subtests are identified as follows: Reading, English, Mathematics, Science, the USA In the World, and Solving Everyday Problems.

Administration Procedures: The EDS was administered to the participating seniors using a matrix sampling scheme. All participating seniors were administered one of the following four combination of subtests on both pretest and posttest:

(1) Reading and English
(2) Mathematics
(3) Science
(4) USA In the World and Solving Everyday Problems

No student was tested less than 40 minutes or more than one hour.

Scoring Procedures: Scoring keys and machine scoring are available from the publishers. Tables are available in the manual for converting raw scores to standard scores, grade scores or percentiles.

Reliability: Coefficients of reliability are available from the EDS technical report[2] and range in value from a low of .84 to a high of .90 for the 12th grade. The test - retest reliability coefficients, calculated from 40 FY 74 students, are as follows:

Scale	r
Reading	.79
English	.90
Mathematics	.83
Science	.85
USA In the World	.80
Solving Everyday Problems	.79

[1] Scholastic Testing Service, Bensenville, Illinois.

[2] Scholastic Testing Service, Educational Development Series, Technical Report - Senior Level - Spring 1967. Bensenville, Illinois.

Validity: Evidence of content, criterion-related, and construct validity is presented in the Technical Report.[1]

[1] Ibid.

APPENDIX B-5

Iowa Tests of Educational Devleopment

Name of Instrument: Iowa Tests of Educational Devleopment[1] (ITED) - Form X5

Rationale: The ITED was designed to provide a comprehensive assessment on student academic achievement.

Respondent Group: The complete battery of the ITED was administered to all EBCE students as a pre and post test measure of student achievement.

History of Development: Development and tryout of the ITED-X5 began in 1964 and continued through 1969. All exercises constructed for use were written by subject-matter experts or experienced item writers. The following criteria were considered in selecting the exercises: (1) the content discipline from which the exercise was drawn; (2) the process or skill used by the examinee in responding to the exercise; (3) the discrimination between good and poor students as measured by corresponding scores on a previously validated instrument; and (4) the overall difficulty of the exercise and the change in difficulty from grade to grade. The tests are designed to be essentially power tests, not speed tests.

Item Content: Eleven scores can be identified from the eight subtests of the ITED. The eleven scores are identified as follows: Composite (sum of standard scores for Reading, Language Arts, and Mathematics); Reading Comprehension; Vocabulary; Reading Total (sum of scores from reading comprehension and vocabulary); Language Usage; Spelling; Language Arts Total (sum of scores from Language Usage and Spelling); Mathematics; Social Studies Total; Science Total; and Use of Sources.

Administration Procedures: The ITED may be completed by any student in grades nine through twelve. The complete battery takes about four hours to complete. The national norms were established from group testing situations.

Scoring Procedures: Scoring keys and machine scoring are available from the publishers. Tables are available in the manual so that raw scores can be connected to standard scores, percentiles or growth scores.

---

[1] Science Research Associates, Inc., Chicago, Illinois.

Reliability: Coefficients of reliability are available from the ITED technical report[1] and range in value from a low of .90 to a high of .97 for the twelfth grade. The test - retest reliability coefficients, calcualted from 78 FY 74 EBCE students, are as follows:

Scale:	r
Reading Comprehension	.73
Vocabulary	.92
Total Reading	.87
Language Usage	.85
Spelling	.92
Total Language Arts	.94
Mathematics	.84
Social Studies	.76
Science	.84
Use of Sources	.89

Validity: Evidence of content, criterion-related, and construct validity is presented in the SRA Assessment Survey Technical Report.[2]

---

[1] Science Research Associates, Inc. Iowa Tests of Educational Development, SRA Assessment Survey, Technical Report. Chicago, Illinois: Science Research Associates, Inc. 1972.

[2] Ibid.

APPENDIX B-6

Student Information System

Student Confidential Questionnaire

Name of Instrument: Student Confidential Questionnaire - Level II. (CSQ-II)

Rationale/Objective: The questionnaire was developed as one component of an approach to systematically collect data on student learning behavior. The questionnaire is designed to obtain student descriptions of interests, attitudes, and plans. There are two parts to the questionnaire. Part I is designed to obtain descriptions of students in terms of background and interests. Part II is designed to provide data on the students perception and attitude toward various aspects of themselves.

Respondent Group: The CSQ-II was administered to all experimental (12th grade) and comparison group (12th grade) students as a pre and post test measure from the Kanawha County School System.

History of Development: The CSQ-II was developed in three phases. Personnel with skills in system analysis, data processing, school administration, teaching, learning theory, psychology, social work, occupational guidance, personality theory, educational measurement, and curriculum were involved and participated in the development and theory behind the total student information system. A large number of traits have been validated through extensive research by the developers, (Behavioral Consultants, 312 Atlas Building, Salt Lake City, Utah). Eight of the traits were identified by AEL evaluators as having potential for evaluating some of the EBCE goals.

Item Content:[1] Descriptions of the eight traits used by AEL are given below. The items which are used to identify these traits are all found in Part II of the questionnaire.

1. Cognitive Skills. This is a measure of basic learning aptitudes and highly correlates with aptitude measures. The trait includes general comprehension, reading, speaking, and general learning skills.

2. Learning Attitudes. This is a measure of a student's affective attitudes toward learning as demonstrated by such items as concentration, organization, dependability, and willingness.

---

[1] Manual I of Student Information System, Behavioral Consultants, 312 Atlas Building, Salt Lake City, Utah.

3. Personal Adjustment. This includes such items as orderliness, pleasantness, good judgement and happiness.

4. Maturity. This includes such items as not yelling at others, fighting, and losing temper.

5. Social Adjustment. This includes such items as confidence, leadership, well-liked and concern for others.

6. Flexibility. This includes such items as being free from a need for praise, sensitive, stubborn, easily offended, and unpredictable.

7. Reality. This includes such items as absence of excessive crying and giggling, self-criticism, and guilt feelings.

8. Vocational Readiness. This scale measures work attitudes and habits which are conducive to success on the job.

Administration Procedures: The CSQ-II may be completed by any student in grades seven through twelve or that particular equivalent age. The questionnaire takes about 30 to 45 minutes to complete. It can be administered in small or large groups or individually.

Scoring Procedures: Each item in the questionnaire is answered on either a five or seven point Likert scale. The scoring of each scale has been determined by the developers using a factor analysis procedure to determine clusters of items. Scoring keys and machine scoring are available from the developers. Summing the response values yields scores on each of the traits. These scores may be subjected to any of the usual statistical techniques.

Reliability: Test-retest reliability coefficients were calculated for the eight scales. A total of 208 pairs of pretest - posttest subjects were used to calculate the reliability coefficients.

Scale	No. of Items	r
Cognitive Skills	8	.63
Learning Attitudes	5	.45
Personal Adjustment	12	.50
Maturity	7	.53
Social Adjustment	7	.51
Flexibility	6	.52
Reality	7	.61
Vocational Readiness	10	.53

Validity: The authors of the CSQ-II have developed a procedure for validating the traits by identifying those students who are most likely to be observed in the behavior defining the trait and those who demonstrate the least observed behavior defining the trait. Statistical procedures are used to identify the items, which have significant impact on the trait.

The AEL-EBCE staff ran some correlations over specific criteria collected to determine concurrent validity of the CSQ-II traits with other scales administered to EBCE students. The significant correlations are presented below.

Scale	r
Cognitive Skills:	
Educational Development Series - (EDS) - Mathematics Subtest	.15**
Iowa Tests of Educational Development - (ITED) Use of Sources	.18*
Career Maturity Inventory (CMI) - Attitude Scale	.16**
Career Maturity Inventory - Choosing a Job	.12*
Career Maturity Inventory - Looking Ahead	.11*
Career Maturity Inventory - What Should They Do	.13*
Learning Attitudes:	
EDS - Reading	.12*
EDS - Mathematics	.16**
CMI - Attitude Scale	.15**
CMI - Knowing Yourself	.11*
CMI - Choosing A Job	.21*
CMI - Looking Ahead	.16*
CMI - What Should They Do	.16*
Social Adjustment:	
EDS - Mathematics	.11*
CMI - Attitude Scale	.16**

Scale	r
Social Adjustment (cont'd)	
CMI - Knowing Yourself	.16**
Knowing About Jobs	.20**
Choosing A Job	.19**
What Should They Do	.18**
Maturity:	
EDS - English	.15**
CMI - Attitude Scale	.12*
CMI - Knowing Yourself	.13*
CMI - Knowing About Jobs	.11*
Personal Adjustment:	
EDS - Mathematics	.12*
EDS - USA In The World	.15**
EDS - Personal Adjustment	.11*
CMI - Attitude Scale	.13*
Knowing About Jobs	.17*
Choosing A Job	.10*
Flexibility:	
No significant correlations	
Reality:	
EDS - Science	.10*
Vocational Readiness:	
EDS - English	.10*
CMI - Attitude Scale	.11*
Knowing Yourself	.15**

Scale	r
Vocational Readiness (cont'd)	
CMI - Knowing About Jobs	.13*
Choosing A Job	.13*

Dissemination: The AEL group is examining the CSQ-II as a potential outcome measure to detect changes in attitude due to program effects.

General Comments: The reliability and validity estimates of the instrument have been primarily calculated from data collected in a region in and around Utah. The instrument does appear to have potential as an unobstrusive measure of affective traits. The traits were validated with students in traditional classroom situations.

Recommended Revisions: The items identified with the traits need to be re-examined and validated for the AEL region. Some of the traits (particularly Vocational Readiness) appear to be incorrectly labeled.

---

* - Probability level = .05

** - Probability level = .01

APPENDIX C-1

PARENT INTERVIEW INSTRUMENT

PARENT INTERVIEW INSTRUMENT

Setting Up Appointment

1. Phone and introduce self.
2. Identify purpose of study.
   a. End-of-year evaluation
   b. Program revisions FY-75
   c. Provide project staff with information
   d. Increase communications with parents
3. Set up appointment.

Interview Procedures

1. Introduce self.
2. Review reason for study.

   Note: (Maintain a very relaxed informal atmosphere throughout the interview. The parents should be free to ramble if necessary.)
3. Record information that answers specific questions plus any additional comments you feel are important.

Questions

1. How did you first hear about the EBCE Program?

   _____

   _____

   _____

   _____

2. Approximately how often have you met on an individual basis with program staff? _____

   _____

PARENT INTERVIEW INSTRUMENT

Continued

Probe: Who initiated the contacts or why wasn't there more?

3. How would you rate the quality of instruction at EBCE?

4. How would you rate your overall relationship with learning coordinators, counselors, etc.?

5. How would you rate the enthusiasm of the learning coordinators in the EBCE Program?

6. What is your overall impression of the EBCE Program?

PARENT INTERVIEW INSTRUMENT

Continued

7. What do you like about the program? _____

_____

_____

_____

8. What do you dislike about the program? _____

_____

_____

_____

9. Would you suggest any changes? (Get specific example, if possible.)

_____

_____

_____

_____

10. Do you think you understand what EBCE Program is all about and how it works? Yes___ No___. How would you describe it?

_____

_____

_____

_____

11. Has the program had any effect on your child? (Get specific examples.) _____

_____

What kinds: _____

_____

PARENT INTERVIEW INSTRUMENT

Continued

Working harder/less hard/about the same? _____

_____

Learning? (Reading, writing, interpersonal skills, information about careers, information about self-learning about academic subjects?) _____

_____

More responsible? _____

_____

More interested, curious? _____

_____

More confident, etc.? _____

_____

Has he clarified his own career goals? Or is he thinking more about the future? _____

_____

12. If you had it to do over again, would you encourage, allow, or forbid your son or daughter to go to EBCE? _____

_____

_____

_____

13. How well does the EBCE Program compare overall with the past school experience of your son/daughter? _____

_____

_____

_____

PARENT INTERVIEW INSTRUMENT

Continued

14. Have you received enough information about your son's or daughter's progress in the EBCE Program? _____

_____

_____

_____

15. In comparison with regular schools how much opportunity did the Career Education Program provide your daughter or son for learning about occupations? _____

_____

_____

_____

16. What effect, if any, has the Career Education Program had on helping your son or daughter form career plans? _____

_____

_____

_____

_____

17. In comparison with regular schools how much opportunity did the Career Education Program provide your daughter or son for general learning? _____

_____

_____

_____

_____

PARENT INTERVIEW INSTRUMENT

Continued

18. What positive changes have you noticed in your son or daughter that might be a result of participation in the Career Education Program? _____

_____

_____

_____

19. What negative changes have you noticed in your daughter that might be a result of participation in the Career Education Program? _____

_____

_____

_____

20. How often does your son or daughter talk to you about what's going on in the Career Education Program? _____

_____

_____

_____

21. What do you think of the occupational plans of your daughter or son? _____

a. ___ There aren't any firm plans yet.

b. ___ The plans should be changed.

c. ___ The plans seem to be good.

d. ___ We haven't really had a chance to discuss the plans.

22. What do you think your son or daughter will be doing a year after high school? _____

a. ___ Working

PARENT INTERVIEW INSTRUMENT

Continued

22. b. ___ Attending some kind of college

c. ___ Going to a business or trade school

d. ___ Military

e. ___ Other (please specify) _____

23. When you were first contacted about EBCE, did we provide you with enough information? _____

_____

_____

_____

24. Has the program been what you expected it to be?

_____

_____

_____

_____

25. Have you been satisfied with the employer sites your son/daughter has been placed in? Yes___ No___

If no, probe: _____

_____

_____

_____

APPENDIX C-2

EMPLOYER INTERVIEW INSTRUMENT

EMPLOYER INTERVIEW INSTRUMENT

Setting Up Appointment

1. Determine who should be called (contact person)
2. Phone and introduce self
3. Identify purpose of study
   a. End-of-year evaluation
   b. Program revisions FY-75
   c. Provide project staff with information
4. Set up appointment

Interview Procedures

1. Introduce self
2. Review reason for study

   Note: (Maintain a very relaxed informal atmosphere throughout the interview. The contact person should be free to ramble if necessary.)
3. Record information that answers specific questions plus any additional comments you feel are important.

Questions

1. Did the EBCE staff provide you with the necessary information to help you direct students' activities at your site?

   Yes_____ No_____ Sometimes_____

   Probe:

   Did the EBCE staff usually show you the:

   _____Student Activity Sheet(s)

   _____Student Program Profile (Explain, if necessary)

   _____Type of products expected from student

   _____Explain reason for the particular placement

   _____Provide you with feedback on student's progress

2. Were you ever shown or given the EBCE Public Relations Packet?

   Yes_____ No_____ I don't remember_____

   If yes, how effective was it? _____

   _____

3. Why did you agree to participate in the EBCE Program?

   _____

   _____

4. Do you think the EBCE students have been interested in your site? Yes_____ No_____ Don't know_____

   (Probe, if you think the contact person would like to continue talking about this area.) _____

   _____

5. Based on the EBCE students placed at your site, do you feel these students were interested in the concept of EBCE?

   Yes_____ No_____ Don't know_____

6. How have employees at your site reacted to the EBCE students placed at your site? _____

   _____

7. How has top level management reacted to the EBCE students placed here? _____

   _____

8. Have you been satisfied about the feedback received about what happens to the student after he leaves your site?

   Yes_____ No_____

   (Probe, if you can.)

   _____

   _____

9. Do you think your company will continue working with EBCE project during the next couple of years?

   Yes_____ No_____ Don't know_____

10. Based on the students and staff you've met, how effective do you feel the program was? _____

    _____

11. Do you feel the program functioned as you were led to believe when you were recruited as an employer site?

    Yes_____ No_____ Don't know_____

12. What do you feel the strengths of the EBCE Program are?

    _____

    _____

13. What do you feel the weaknesses of the EBCE Program are?

    _____

    _____

John A. Hilderbrand May 28, 1974